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The Bradshaw Lecture
ON
INTRATHORACIC TUMOURS AND ANEURYSMS IN THEIR CLINICAL ASPECT.

Delivered before the Royal College of Physicians of London on Nov. 2nd, 1911,

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MR. PRESIDENT, FELLOWS OF THE COLLEGE, AND GENTLEMEN,—My first duty is to express to you, Sir Thomas Barlow, my grateful thanks for the honour you conferred upon me by appointing me Bradshaw Lecturer for the present year. With the appreciation of an honour such as this there mingles, I fancy, in the minds of most recipients a sense of the greatness of the task which the appointment imposes. At any rate, it was so in my case.

My predecessor in office gave you an interesting sketch in words of Dr. William Wood Bradshaw, whose widow founded the lectureship in memory of her husband. Dr. Newton Pitt also showed his portrait, the representation of which in the *British Medical Journal* has made the profession at large acquainted with the outward personality of the man whose memory is perpetuated by this lectureship and "whose righteousness hath not been forgotten."

It so happened that the year in which I have the honour of being Bradshaw Lecturer is also the year in which I ceased, by the rules of the institution, to be a member of the acting staff of the hospital in the service of which I had been privileged to be for over 30 years. At such a time it is perhaps only natural that I should look backwards rather than forwards, and—dare I confess it!—clinical medicine seems to me at the present moment to be in danger of losing something of its old charm and, in the future, of losing much more. It was no other than Trousseau who exclaimed some 50 years ago in an address on medicine—"Pray, gentlemen, let us have a little more art, a little less science." Yet who would have welcomed with greater warmth such triumph of science as the introduction into practice of diphtheritic antitoxin? Indeed, "the individual withers, and the world is more and more." This is only evolution after all.

INTRODUCTORY REMARKS.

The subject I have chosen is a very practical one: "Intrathoracic Tumours and Aneurysms in their Clinical Aspect."

I regard aneurysms as tumours—only of a special kind and revealing themselves by special signs. The inclusion of aneurysms may be adversely criticised, but, I believe, I am right in regarding intrathoracic *aneurysm*, as soon as it exerts pressure on neighbouring structures—say the recurrent nerve—*as a tumour*. All who have had much acquaintance with the two conditions—neoplasm and aneurysm within the chest—will, I think, admit the difficulty occasionally experienced in distinguishing between them, even when the greatest care is taken.

Notwithstanding the great help in diagnosis afforded by recent discoveries in physical science and their utilisation in clinical medicine, for years to come, I fancy, the manifestations of intrathoracic tumours will still be investigated at the bedside in the old way—by the *symptoms* and by the *signs* they occasion, or in other words, *subjectively* and *objectively*, though the division at times proves rather arbitrary.

While including aneurysms with neoplasms as intrathoracic tumours, it is the latter (neoplasms) that I wish specially to consider, inasmuch as, paradoxically, aneurysms are common and tumours comparatively rare. The distinction between the two is, however, a matter of considerable practical importance in view of the fact that aneurysms not rarely admit of at least having their symptoms much relieved by treatment and of a useful life being considerably prolonged, while the downward progress of the patient with intrathoracic neoplasm is seldom even interrupted and our therapeutic endeavour is too often limited to the promotion of euthanasia, albeit without any shortening of life. If it be the first duty of the physician to "obviate the tendency to death" of his patient, then surely the second is to relieve his sufferings. Whether we have regard to intensity of actual pain, such as the pain of angina pectoris, or to its persistence, as in aneurysm grinding the vertebræ, or to suffering other than pain, such as suffocation and consequent air-hunger, in the whole field of clinical medicine no class of diseases can be compared with that we have under consideration in potency of production of pain and suffering. Even this is not all: the duration of such pain and other sufferings may be great, whether they be persistent, remittent, or intermittent.

No longer ago than 1889 the writer of one of the best known monographs on the subject, "Affections of the Mediastinum," Dr. Hobart Amory Hare, remarked that "for some unaccountable reason this subject has remained a field in which but few workers have toiled, and whose surface is therefore almost barren." Since these words were written no doubt several very valuable contributions have been made to the study and literature of the subject, among which I would mention Sir Douglas Powell's and Dr. Frederick Roberts's articles in Allbutt and Rolleston's "System of Medicine," the late Dr. Lindsay Steven's contributions in the *Glasgow Medical Journal*, and most recently the contribution of Dr. Newton Pitt in his Bradshaw lecture of last year.

With these introductory remarks I will now plunge *in medias res*.

PAIN.

It is customary to consider symptoms before signs, and in the clinical investigation of the former one has to consider the past as well as the present. I will begin with *pain*, the most *subjective* of all symptoms. Pain is seldom altogether absent in the course of intrathoracic tumours. One may say indeed that it is *never* absent if we include under the term such distresses as dyspnœa and insomnia. Here, however, I use the word in the conventional sense. In inquiring about this symptom in the study of a case one has to bear in mind the difficulty experienced by patients in describing their painful sensations even when present at the moment. How much greater must this difficulty be experienced when a remote pain is being described? As has been said, to recall such sensation in full intensity would be tantamount to suffering it again, and we may conclude that Nature has mercifully decreed that there shall be vague and indefinite recollection of even a severe pain. So, I fancy, clinicists till recently were apt to underrate the value of the symptom—pain—and we owe a debt of gratitude to Dr. Henry Head for the way in which he has shown how fruitful in diagnosis may be the careful investigation of this symptom, the "inwardness" of which, to use Sir William Gairdner's expression, exceeds that of all others. Speaking generally, I think it may be stated that aneurysmal tumours are the more productive of pain, and in their case not only is the frequency of pain greater, but its intensity and its persistency also. Yet the seeming caprice of pain, even with regard to its mere presence, must be borne in mind, and from time to time one is forced to marvel, in the presence of its abundant physical causes, at the absence of the symptom—such cause, for instance, as a projecting aneurysmal tumour, which by its slow terebrating action has gradually but effectively absorbed alike sternal bone and costal cartilage. In striking contrast with such painlessness is the common long-drawn-out agony of aneurysmal pressure on the spine. Actual pain is certainly in frequency, and specially in intensity, much less characteristic of neoplasm than aneurysm, though suffering other than pain—yet quite as great, if not greater—is the common accompaniment of neoplasm, for instance, when it compresses the trachea or superior vena cava.

Speaking of intrathoracic tumour in general, different types of pain are met with, the chief of which I will only very briefly enumerate. 1. There may be referred pain—for instance, angina pectoris, which is by no means rare in aneurysms involving the ascending aorta. My experience would lead me to believe that the coronary orifices are always involved in such cases, but I do not wish to be dogmatic, especially in view of the fact that I have had two cases of typical angina pectoris in girls with mitral stenosis as the only cardiac lesion, one of whom died and

was found to have perfectly sound coronary orifices and arteries. Pain, and especially tenderness in Head's "inferior laryngeal triangle," should be remembered and inquired for, and if present, associated with probable implication of the transverse portion of the arch by aneurysm. 2. There may be pain, not referred, due to direct pressure on somatic nerves, such as is apt to occur in aneurysm of the descending thoracic aorta or secondary implication of the spine by neoplasm. Interference with other afferent functions of these nerves may be discovered, later, on objective examination. 3. There is the all-important pain, due to pressure directly upon bone, especially the spine. It is a trite saying that long-continued persistent pain in the back should make one think of aneurysm, unless there has already been neoplasm in some other part of the body. 4. Lastly, one cannot ignore the fact, I think, that severe, seemingly local, pain has been complained of in rare cases of rupture of the internal coat of the aorta, although the fact hardly concerns us in our present consideration.

While definite and persistent pain is, then, much more common in the case of aneurysm than neoplasm, indefinite pain and, still more frequently, distress, that can hardly be called pain, are seldom absent in the case of the latter. In the earlier stages of a case of aneurysm, moreover, indefinite fleeting and recurrent pains about the upper part of the chest, shoulders, upper arms, and neck are so common as, at least, to suggest a careful examination for the signs of aneurysm when they have been complained of.

I would remind you, lastly, in the consideration of pain as a symptom of intrathoracic tumour, of the occasional *occipital pain* suffered by patients the subjects of aneurysm of the arch. Twice I have known this symptom so severe as to be the most prominent of the case. The headache is not that common in heart cases and associated with irritation of the tenth dorsal spinal segment from a congested liver. Dr. Head states that when the third cervical segment of the cord is involved, the pain is found to "shoot from the back through the head to the centre of the forehead." From the description I have received from patients with aneurysm of the arch, the pain seemed to be essentially occipital. The pain of secondary pleural and possibly of lung conditions need only be mentioned.

DYSPNŒA.

Among the symptoms of intrathoracic tumour dyspnœa is entitled to an important place. Moreover, it occurs not in one form, but in various forms, and these may be met with in combination. If we consider the effects of obstruction situated, so to speak, at the root of the bronchial tree, on the one hand, and contrast them with the effects of the cutting off, and withdrawing from function, of a large portion of the vesicular field for oxygenation, on the other hand—types of dyspnœa exemplified respectively by laryngeal obstruction in croup and by pneumonia—we have the two extremes of dyspnœic types met with in intrathoracic tumour. But between these there are many intermediate varieties—such, for instance, as occur in ordinary bronchitis with much secretion in the intermediate bronchi. Those types of dyspnœa in which the obstruction is at the trunk or in the larger branches are, in common language, designated *laboured respiration*, and they occur, as might be foreseen, frequently in cases of intrathoracic tumour. On the other hand, when such obstruction has affected one main bronchus and has led to the *complete* withdrawal from function of a whole lung, while the trachea and other bronchus does not come directly under the influence of the obstruction, such dyspnœa as there may be will be expressed by simple frequency of respiration, each act being rapidly and easily performed. When it is remembered that in the first or tracheal type of dyspnœa each act of respiration becomes a laboured struggle, it is obvious that great frequency of respiration is impossible, though it is true that when the respiratory acts are failing, the element of struggle being less pronounced, their frequency may again increase at the expense of their efficiency.

Effusion into the pleura is a common complication of intrathoracic tumour and diminishes the vesicular field and *per se* should induce dyspnœa of the pneumonic type. The two types of dyspnœa contrasted as stated may, however, be present together in varying proportion, but the laboured type is the more subjective and appeals more to the patient, at any rate while he is at rest.

When present, the stridor of tracheal obstruction predominates over all other respiratory sounds and may be heard at a great distance from the patient. It is important to note whether stridor is present with both inspiration and expiration, or with inspiration only, the latter condition pointing to paralytic glottic obstruction. Adventitious sounds, other than rhonchi, are not common, and their absence or ill-development under the circumstances may be suggestive in diagnosis.

If there be obstruction in the trunk or larger branches of the bronchial tree as the result of intrathoracic tumour, there is commonly observed the familiar "antero-lateral inspiratory retraction" of the lower part of the chest; and exaggerated action of the diaphragm so well described by Dr. Sibson, who carefully distinguished between diaphragmatic "effort" and diaphragmatic "descent," as exemplified by abdominal protrusion. Sibson well remarked that "this diminution of abdominal protrusion with manifestly increased diaphragmatic effort allies in this respect emphysema and bronchitis with cases of extreme laryngeal obstruction, in which the same phenomena present themselves."[1]

One knows how in the case of simple copious pleuritic effusion any sign of interference with the function of the unaffected lung becomes a danger-signal, urgently calling for removal of the fluid, and this, though such sign may be only an occasional rhonchus. So in intrathoracic tumour, implication of the lung alone acting is of great moment. There may be only bronchitis or there may be œdema of the lung tissue itself, or there may be both conditions in varying proportion, but in any case asphyxia is threatened.

It is a remarkable fact that, even when one would think partial obstruction to the trachea or a main bronchus must be permanent and little varying, paroxysmal exacerbations are apt to recur from time to time. This occurrence is much more common in cases of aneurysm than of solid growth. Such attacks have been attributed to plugs of secretion becoming engaged at the site of obstruction, but this condition can hardly explain all cases. A most striking feature of these cases is the relief often afforded by the hypodermic injection of morphine and atropine.

Paroxysms of dyspnœa again may form the only evidence of an aneurysm situated at the posterior descending portion of the arch, in cases in which even accentuation of the aortic second sound (to be considered later) is absent, inasmuch as the aorta between the valves and the sac is not dilated. Such paroxysms are often described as "asthma." I once had the curious experience of, within a fortnight, having two patients under my care in hospital suffering from such paroxysmal dyspnœa due to the cause in question. In the first case the cause of the dyspnœa which resembled a cardiac dyspnœa, though no signs of heart disease were obtainable, was not recognised; in the second it was recognised, because the first, having proved fatal, had taught its lesson by autopsy. In both these cases an aneurysm of the posterior part of the arch had compressed the lower end of the trachea and left bronchus. These two cases presented the best examples I have met with of what Sir William Broadbent called the "aneurysm of symptoms." I take it they exemplified, too, the condition that is least incorrectly included under "asthma" and described as a symptom of intrathoracic tumour, specially aneurysm.

As a matter of clinical experience it will be found that dropsy of the lower extremities and trunk is not rarely observed towards the termination of a case of intrathoracic tumour that does not interfere directly with the inferior vena cava. In the skiagram I show there may be seen a marked projection to the right of the sternum, just below an aneurysmal similar projection, and due to dilatation of the right auricle as a part of general cardiac dilatation. In one case (neoplasm) in which a systolic murmur had long been audible over the whole of the right and unaffected side of the chest, towards the end murmur became audible over the heart itself, apparently as the result of cardiac muscle-failure, and consequent valve incompetence. It often, indeed, happens that towards the end of a case of intrathoracic tumour there is in the dyspnœa the element of cardiac muscle-failure, and the fact may possibly be utilised, in some small degree, as regards treatment. Pericardial effusion—dropsical or inflammatory—may take a share in

[1] Transactions of the Royal Medical and Chirurgical Society, vol. xxxi., p. 37.

the production of the dyspnœa of intrathoracic tumour, just as pleural effusion often does.

PULMONARY CHANGES RESULTING FROM INTRATHORACIC TUMOUR.

Before considering the percussion dulness of the side, that is so apt to be developed in the course of intrathoracic tumour, it will be well to have regard to changes in the lung resonance that may precede dulness.

Changes in Lung Resonance.

My predecessor in office, Dr. G. Newton Pitt, called special attention to a very peculiar condition of lung that may arise from *partial* bronchial obstruction, whereby it becomes over-distended, as it were, with air. While respiration is active the air under the circumstances, as Dr. Pitt states, "has greater difficulty in escaping than it had in entering, and the lung becomes over distended. The pressure may be so much raised that the diaphragm may be displaced two inches and the heart pushed out of position." If the whole lung be affected, its main bronchus being compressed or otherwise obstructed, the condition may be confused with pneumothorax, though in the latter case an X ray representation indicates the collapsed lung absent in the former. Dr. Pitt, no doubt rightly, regarded this condition as usually persisting only for a time, inasmuch as through increase of the obstruction continued ingress of air becomes impossible and the imprisoned air is absorbed, dulness finally replacing the abnormal increase of resonance in question. We are under obligation to Dr. Pitt for directing attention to the subject. On first consideration, such increase of resonance as has been referred to may seem opposed to Skoda's dictum: "That the lungs partially deprived of air should yield a tympanitic, and when the quantity of air in them is increased a non-tympanitic, sound appears opposed to the laws of physics. The fact, however, is certain."

In corroboration of Skoda's statement Dr. Walshe remarked in his classic work: "Skoda is unquestionably right as regards the matter of fact, provided the word (tympanitic) be understood to mean 'tubular' or 'amphoric.'" But these are the only varieties of tympanitic resonance commonly met with over the lungs in disease, inasmuch as the abnormal air-containing space is not large, the "tubular" variety implying a smaller such space than the "amphoric." There is, moreover, no hard-and-fast line between them, as Walshe fully admitted. The essential thing is that *tympanitic quality* should be recognised, and whether we give to the resonance the name of "tubular" or "amphoric" will depend simply on the volume of air percussed. A still fuller tympanitic resonance such as, indeed, is seldom met with over the lung

FIG. 1.

From a case of endothelioma of the pleura. The illustration shows the internal surface of the parietal pleura. The pleura is very much thickened and shows many nodules, some of them as large as cherries.

is best described simply as a "full tympanitic resonance," but all three varieties possess tympanitic quality and vary only in "fulness" of resonance or volume of sound.

Let us take a healthy lung removed from the body and percuss it; it yields not the "non-tympanitic" resonance it yielded in the unopened chest, but "tympanitic" resonance, and to restore non-tympanitic resonance, such as the lung yielded in the unopened chest, what have we to do? Restore its tension by blowing it up with bellows attached to its bronchus.

There is no more familiar example of *acquisition by lung resonance of tympanitic quality* than the so-called "tubular" percussion sound above a copious pleural effusion, but the consolidating process of pneumonia offers many examples. I would urge the clinical importance of the recognition of tympanitic quality in lung resonance under abnormal circumstances, and at the bedside students, as a rule, I think, find no difficulty in distinguishing between "non-tympanitic" and "tympanitic" resonance, whether the latter be "full" or "empty," to use Skoda's most useful classification. The assumption of tympanitic quality by the lung resonance—such as it is—will often be observed in the course of intrathoracic tumour, and the principles I have referred to will generally enable its correct interpretation to be made.

That there is a very natural tendency to confuse excessive degrees of "non-tympanitic" resonance with "tympanitic" resonance is admitted, but the distinction can be made. I have often remarked upon Dr. Walshe's accuracy of statement (though he was an opponent of Skoda's teaching) displayed in his definition of simple excess of pulmonary resonance when he used the words in his description of the "quality" of resonance in emphysema—"more or less *approaching* tympanitic."

It may be permissible here briefly to refer to a remarkable occurrence associated with excess of air in the chest outside the lungs and due to a mediastinal tumour composed of tuberculous lymphatic glands. The late Dr. Joseph Coats, of Glasgow, related the following example. An infant, not known to be ill, suddenly developed dyspnœa and subcutaneous emphysema and died in 18 hours. Post mortem the anterior mediastinum was greatly blown up with air. The left lung was greatly distended with interstitial emphysema. The lymphatic glands at its root were tuberculous and there was limited tuberculosis of an adjoining portion of lung. An adherent gland had discharged its contents into the bronchus connected with this tuberculous piece of lung. "An irregular aperture ..... was found in the wall of one of the smaller primary branches of the main bronchus. This aperture led into a cavity in the gland and had allowed the softened contents of the gland to escape and infect the lung and finally the air to escape from the lung to the tissues outside." The case at least illustrates how far-reaching may be the effects of a mediastinal tumour on the respiratory system, though in the adult tuberculous lymphatic glands seldom form a "mediastinal tumour" with its usual clinical phenomena.

Excessive non-tympanitic resonance and the change from the normal non-tympanitic to tympanitic resonance of varying degrees of fulness over the chest form interesting features in the clinical manifestation of mediastinal tumour—aneurysm or neoplasm. Their explanation, of course, is the change brought about in the air-content of the lung and in the tension of its structure. Dr. Frederick Roberts in his monograph in Allbutt and Rolleston's "System," Vol. V.,

FIG. 2.

Oval saccular aneurysm of the ascending aorta, the size of a cocoanut. It is adherent to and incorporated with the wall of the right ventricle. Adhesive pericarditis is well seen. A.W., Anterior wall of aneurysm. R.V., Right ventricle. L.V., Left ventricle. A., Aorta.

p. 647, goes so far as to state "that a growth may interfere with the trachea only to such a degree as to cause accumulation of air and consequent distension of both lungs." Such change, however, is, as a rule, unilateral or local.

The distinction between the percussion resonance of lung over-distended with air—that is, with a *plus* content of air—and of lung with a *minus* content of air is, I believe, of extreme importance clinically, and in conclusion of the subject I would remind you once more of the dictum of Skoda: "A healthy lung strongly inflated within the thorax so as to be made to press against its walls gives a full, clear, but non-tympanitic sound (on percussion) over every part where it comes in contact with the walls."

Causes of Dulness.

The causes of dulness over the lung area, as a result of intrathoracic tumour, are numerous, and are apt to occur in combination. The tumour itself may be the direct cause, and enormous tumours are on record, almost sufficient in themselves to account for the dulness of the whole side; but here we are concerned chiefly with those causes that depend on secondary pleural and lung changes. Pleural effusion we have noticed to be a very common result, and Dr. Pitt has shown it to be much more common in the case of neoplasm than in that of aneurysm. The pleura itself may be the seat of new growth, and I have brought a specimen which shows the pleura covered with tumours, though not one could be said directly to be the cause of pressure symptoms. (Fig. 1.)

The patient was an engine driver, aged 58 years, who had fallen down while on his engine and injured his right side and right knee in December, 1908, and who died on April 30th, 1909. The right knee had been injured 13 years before and again later. It showed marked thickening of bone with blurring of outlines resembling an osteo-arthritis when the patient came under observation on March 8th, 1909. On the 23rd he was admitted to the medical wards and the prominent feature of his case was a copious hæmorrhagic right pleural effusion which, after tapping, rapidly reaccumulated, while there was only slight and irregular pyrexia. On April 29th there was found in the fluid a small fragment of tissue composed of large round cells and very probably a fragment of growth as stated by Dr. Loveday, superintendent of the clinical laboratory. I need not refer in detail to the remarkable appearance of the pleural surfaces on the right side, as it can be seen in the specimen I show, and is well seen in the photographs thereof. In one place the right lung below its hilus was invaded by a growth of the size of a plum. Microscopically the growth in the pleura was found to be endothelioma, though "in places it bore resemblance to a round-celled sarcoma." The growth in the joint had "a similar structure." It was "packed with large round cells and practically devoid of stroma." It may seem straining a point to bring this case under the heading of "intrathoracic tumours," though certainly such were present in abundance. Dr. Samuel West's important observations on the adhesiveness, if I may so say, of the pleural surfaces are too well known to require more than mention, but looking at this pleura, the site of almost universal malignant disease, one can hardly avoid thinking of the influence that such disease would be likely to exert upon this remarkable property of the pleural surfaces had there been no fluid to separate them. The pleura may be so thickened by new growth as itself to contribute materially to the dulness of the side present.

In the briefest possible manner I would refer to another of the specimens I have brought and have had photographed, in which the pericardium presented a pseudo-cystic tumour formed by a localised collection of purulent fluid. In a third specimen the pericardium itself is the seat of new growth.

Pulmonary Changes Associated with Dulness.

The pulmonary changes associated with dulness on percussion, as a result of intrathoracic neoplasms and aneurysms, were so thoroughly considered by Dr. Pitt last year that it will be unnecessary again to consider them in detail. I will merely briefly recall Dr. Pitt's statements that: (1) the lung may become collapsed and therefore solid; (2) there may be a so-called "retention pneumonia," the alveoli being filled with catarrhal cells while giant cells, apart from tubercle bacilli, appear (when there is first collapse and the alveolar walls remain long in contact organisation with obliteration takes place and new connective tissue is formed; further there may be a general fibrosis of the lung beyond the obstruction and a bronchiectasis); (3) dilatation of the bronchial tubes which are generally full of secretion; (4) fibroid thickening of the lung; (5) secondary infections resulting in breaking down of the lung, and (6) the still more destructive process of gangrene; and (7) from such processes as the last two, pleurisy and empyema may result.

These lung changes, however, are too often apt to be of little interest as regards auscultation, inasmuch as the bronchus of supply becomes blocked, and the glottic breath sound cannot be transmitted, while, of course, there can be no play of the lung structure. Vocal fremitus and resonance are likewise apt to be annulled. The heart sounds may, however, it would seem, be well transmitted in the neighbourhood of the heart. In the rare event of a tumour mass becoming broken down into a cavity, communicating with the glottis through an unobstructed bronchus, there may possibly be bronchial breath sound audible on auscultation, and certainly there may be cracked-pot sound on percussion. In a case which I published in THE LANCET in 1888,[2] while the latter physical sign was present, the breath sound could only be called "indeterminate."

IMPLICATION OF NERVE-SUPPLY TO THE LARYNX.

In the clinical recognition of intrathoracic tumour the interference with the innervation of the muscles of the larynx that such tumour may cause has been a matter of great importance to the physician ever since the invention of the laryngoscope made examination of the movements of the vocal cords and associated parts feasible. Although it is in the case of aneurysmal tumours that implication of the vagus nerve, and especially of the left recurrent branch, is most commonly met with, aneurysmal tumours have by no means a monopoly in this respect, and I am disposed to think paresis or paralysis of a vocal cord due to intrathoracic neoplasm is more common than it is generally believed to be. As regards the recurrent branch of the vagi, that of the right side hardly enters into our consideration to-day, inasmuch as it lies practically outside the mediastinum. An innominate aneurysm may, however, so extend upwards as to involve the right subclavian artery in such a way as to exert pressure upon the nerve, or, associated with aneurysm of the arch, there may be an independent aneurysm of the subclavian or of the innominate artery involving the subclavian. The frequency of the existence of more than one aneurysm in the same individual is well known. Less rarely the right recurrent nerve is caught as it were in malignant disease of the œsophagus; but for this to happen such disease must be situated so high up as to lie in the root of the neck rather than in the thorax. Goitre may, again, cause pressure on one or both recurrents, at the same time extending behind the manubrium sterni and so becoming an intrathoracic tumour.

Then there is the interesting question, raised by the late Sir George Johnson, as to the possibility of pressure exerted upon the trunk of one vagus causing interference with the bilaterally associated nuclei of the nerves in the direction of inhibition and resulting in paralysis of both vocal cords—proof of such occurrence does not seem to have been obtained, and it would seem always more likely in a case of double recurrent nerve palsy that some accidental and independent pressure had been directly exerted upon the right nerve as well as upon the left, as, for instance, by an enlarged lymphatic gland in malignant disease, by thickening of the right pleura about the apex of the lung, or by a small independent aneurysm involving the subclavian in the case of intrathoracic aneurysm.

But the interest of bilateral palsy of the vocal cord does not end here; there comes in the question of the relative predominance of the adductor and abductor muscles respectively of the vocal cords—a matter of great clinical importance. It is now a well founded belief that the abductors are the muscles to be first weakened under paralysing influence. The fact has little importance, perhaps, when the affection is of one vocal cord only, but it is quite otherwise when there is bilateral paresis or paralysis of the abductors, permitting the adductors to close the glottis without any pronounced degree of spasm and simply by lack of the opposition which the abductors should supply under normal circumstances.

[2] THE LANCET, Oct. 27th, 1888, p. 809.

Another consideration, which I do not think has received all the attention it deserves and which was the subject of a thesis in 1865 by Professor Wyllie of Edinburgh University, relates to the concavity of the upper surfaces of the true vocal cords, whereby the edges of the cords may be forced into apposition and, in valve-fashion, the glottis be closed by the *in-rush* of air, especially when the current is forcible and the glottis small and narrow. Physiologists have long known that this valve action of the vocal cords is specially demonstrable in the case of young animals whose recurrents have been cut. Granted any weakness of abduction of the cords, the predominance of adduction will in all probability be rendered more dangerous by this valve action to which Wyllie called attention.

Sir George Johnson in 1875, with reference to a case described by him, remarked: "Looking into (the) larynx with the mirror, I saw the vocal cords of their natural colour nearly touching each other in the middle line and nearly motionless. ..... During inspiration the glottis did not expand as in the normal state, but, on the contrary, the cords appeared to be pressed nearer together by the inspiratory current of air, while in expiration again the cords were slightly pushed apart by the outgoing stream of air."

The greater the dyspnœa the more forcible will be inspiration, and consequently the greater this tendency of the true cords to act in valve fashion in this dangerous manner. The condition in which the abductors of both cords are weak is all the more likely to be overlooked without the laryngoscope, inasmuch as the voice is unaffected, and in quiet breathing there may be little or no stridor, although on any exertion and in sleep inspiratory stridor is usually pronounced. When there is direct pressure of an intrathoracic tumour, especially aneurysmal, upon the trachea, the stridor, as already noted, is usually double, though the inspiratory sound is the better developed as a rule. An interesting clinical point concerning the site of obvious obstruction—in the trachea or at the glottis respectively—is, in the latter case, the so-called excursion of the larynx downwards with inspiration and its return in expiration. While palsy of one cord may affect the voice little or hardly at all, direct pressure of a tumour or aneurysm on the lower part of the trachea may interfere to some extent with and diminish its tone, the clang of the cough being usually exaggerated in both cases.

Lastly, the two conditions, palsy of laryngeal muscles and direct pressure upon the trachea, are quite compatible in the same case. As regards the clinical diagnosis of one palsied cord, this can be reliably accomplished only by means of the laryngoscope, inasmuch as the degree of interference with the voice and the presence of stridor on forcible inspiration seem to vary a good deal in different cases.

With the production of adduction resulting from nerve-irritability and spasm there will again come into play what may be called the valve action of the vocal cords, and the greater will be the predisposition to this effect the more forcible is the inrush of air, as in dyspnœa. A very slight degree of spasm of the adductors, the result of nerve irritability, may then determine a very dangerous degree of closure of the glottis. To such result, however, spasm may contribute only by bringing the cords within the range of their dangerous mechanical valve action.

AFFECTION OF THE SYMPATHETIC NERVE.

Both in intrathoracic aneurysmal and neoplasmic tumour the cervical sympathetic nerves may be implicated, affection of the pupil, palpebral fissure, and sweat secretion resulting. The tumour must, of course, extend upwards high enough to involve the sympathetic fibres, leaving the cord by the first and second dorsal roots to ascend in the sympathetic chain, and it must extend in the backward direction. As Gairdner stated: "Intrathoracic aneurysm to affect the sympathetic may be expected to arise from the upper and back part of the arch ..... or its primary branches, the sac projecting backwards in the direction of the sympathetic trunk or its ganglia and of their communications with the spinal system." Before he published a case of the kind in 1855, Dr. MacDonnell, of Montreal, had called attention to a case of malignant tumour producing pressure on the sympathetic in connexion with contracted pupil and ptosis on the affected side. The usual affection is paralysis, with the familiar contracted pupil, diminished palpebral fissure, and interference with sweating on the affected side of the head and neck, though the opposite effects may result, it is believed, from irritation of the nerve. Dr. Purves Stewart has shown how well the area of skin rendered sweatless may be mapped out by dusting charcoal over the head and neck. After general sweating has been induced by pilocarpine the charcoal adheres to the normal sweating side, while it is easily blown off the dry side. Doubt has been recently thrown upon the exclusive causation of unequal pupils in the manner stated, and there has been supposed to exist a relationship between the state of the pupils and of the arteries—"with low blood pressure in one carotid the pupil on that side is dilated, with high pressure contracted." The various other causes of unequal pupils that may accidentally and independently coexist with intrathoracic tumour must, of course, be given due consideration in the investigation of a case before the symptom be admitted to have weight in evidence.

NERVE PRESSURE.

Affection of the brachial plexus, causing weakness and sensory disturbance of the arm, is often included among the symptoms of intrathoracic tumours, especially aneurysmal, but it is obvious that the tumour whatever its nature must extend high up in order to produce the symptom. The affection of the arm in true angina pectoris, with implication of the coronary orifices, must not be confused with that just referred to.

PARAPLEGIA.

One of the rarest clinical manifestations of an aneurysm of the descending aorta is paraplegia. When again the spinal column is invaded by malignant growth, secondary to like mediastinal growth, the same symptom may be developed. It was quite suddenly developed in the case of an aneurysm I witnessed during my hospital residence, the patient, while I was going round the ward, calling out with intense pain in his back and rapidly becoming paraplegic. Secondary malignant growth in the spine is a much less rare cause of paraplegia than aneurysm.

DYSPHAGIA.

It is a familiar fact that dysphagia may be a merely transitory and little pronounced symptom in cases of intrathoracic aneurysm, when the position of the aneurysm, in relation with the gullet, would seem to indicate a good deal of interference with the function of the latter. Moreover, the patient may never have been conscious of such interference under like circumstances. It is a good rule of practice to be careful in passing a bougie for dysphagia, lest the cause of the dysphagia should be an aneurysm.

In malignant tumour of the gullet dysphagia is, of course, an all-important symptom, and the possible implication of the recurrent laryngeal nerves in the growth has to be borne in mind with regard to the larynx.

HÆMORRHAGE.

Prolonged repeated slight hæmoptysis has long been recognised as significant of intrathoracic growth involving the lung. The late Sir William Gairdner, again, called attention to the oozings of blood that may result from an intrathoracic aneurysm. The important fact, in our present consideration, is that slight hæmoptysis may occur over a considerable period of time in the course of intrathoracic tumour—neoplasm or aneurysm. Such slight hæmoptysis, as the result of aneurysm, seems to be, as a rule, short and not much over a month in duration. It is curious to note, however, that a much more profuse single hæmorrhage may be survived for years. Sir William Gairdner related a case in which a profuse hæmoptysis occurred nearly five years before the death of the patient. For several years after the first hæmorrhage the patient "continued occasionally to bring up a more or less tinged expectoration—sometimes rusty, sometimes purple, almost never of anything approaching pure blood." At last this patient died after the sudden loss of 8 or 10 ounces of blood which suffocated him. Post-mortem examination revealed a very large aneurysm of the descending aorta "adherent over a considerable space to the left lung and opening freely into the lung and bronchus and trachea. ..... The left bronchus was stretched over the sac and had its posterior wall absorbed throughout its whole length. ..... The sac was filled with firm coagulum" to which no doubt the patient owed the prolongation of his life.

It may be said that hæmoptysis is often a late symptom in aneurysm and an early and frequently a persistent one in neoplasm. In one of my own cases of tumour the patient

attended the out-patient department of the infirmary for a slight hæmoptysis, which in the absence of definite physical signs was naturally regarded as probably of tuberculous origin. To increase the resemblance of the case to a tuberculous one, a large tumour mass was ultimately formed at the upper part of the right lung and actually became excavated, but there was fulness in the infraclavicular region, not the usual depression of the tuberculous process.

Hæmorrhage from Complicating Pulmonary Tuberculosis.

When we consider the great frequency of tuberculosis in general, it is not surprising that the disease should be found occasionally complicating intrathoracic tumours—neoplasmic or aneurysmal. The affection may be old and obsolete. On the other hand, I have found it active miliary and the cause of pyrexia in a case of aneurysm. It is obvious, therefore, that hæmoptysis may be caused by tubercle, though an aneurysm be present. Rarely, again, hæmoptysis may proceed from lung tissue directly invaded by, and incorporated with, an aneurysmal sac, without the integrity of the wall of the latter being compromised. On the other hand, without any tuberculosis or direct implication of the lung by the aneurysm, blood from the sac may be aspirated into the lung structure, as pictured by Gairdner in his "Clinical Medicine," pp. 482-3.

Hæmatemesis.

Hæmorrhage into the gullet, usually soon, if not immediately, fatal is, of course, a well-known accident of intrathoracic aneurysm affecting the descending part of the arch. However confidently the diagnosis of intrathoracic growth had been previously made it would be a singular trial of one's faith in it, if the case terminated suddenly by a profuse hæmatemesis, and yet this practically happened in a case reported by the late Dr. Lindsay Steven.[3] That the blood did not appear externally is nothing to the point. The patient, aged 57, had suffered from dysphagia, which began in December, 1889. A No. 16 œsophageal bougie passed 13 inches and was then arrested. The diagnosis of cancer of the gullet was made, and on April 1st, 1890, Dr. Steven recorded that he was "quite satisfied that the case was one of cancer of the œsophagus." A great improvement in swallowing and consequent increase of the patient's weight, however, occurred. Dr. Steven was naturally led to doubt the accuracy of his first diagnosis and consider whether or not the dysphagia "might not be due to the presence of an aneurysm or solid tumour at the bifurcation of the trachea." In October he had the "gravest suspicion of aneurysm at the bifurcation of the trachea." On the 18th the patient spat up a small quantity of dark blood, and for the first time complained of pain in the chest. He died suddenly on the 29th, having "raised himself in bed suddenly because of some distress referred to the chest," and then sank back and speedily died with indications of internal hæmorrhage. At the post-mortem examination, on laying open the thoracic aorta (removed from the body) from below upwards "a circular opening with thin and somewhat ragged edges [was] found," which led "into a ragged cavity." On laying open the gullet "at the level of the obstruction ..... a large rugged ulcerated cavity ..... was found in its wall." The upper margin of this excavation was raised and rather sharp and presented the typical characters of the margin of a malignant ulcer. "The stomach [was] greatly distended, being filled with red blood. ..... The duodenum and several feet of the upper part of the small intestine were similarly distended."[4]

Cutaneous Hæmorrhage.

Cutaneous hæmorrhages in the form of petechiæ or ecchymoses may be only expressions of a general hæmorrhagic diathesis in the most malignant sarcomatous growths of the mediastinum, while, in the same case, hæmoptysis, and other hæmorrhages from within, may result from the same cause. On the other hand, the sac of an aneurysm (generally of the arch) coming forwards may be the source of actual cutaneous hæmorrhage. At first there is usually only blood-staining of the skin, but a local inflammatory condition is often set up, with redness and tenderness, so that, as in a well-known case, the patient may regard the red, tender, and possibly elevated spot as a "boil." The deposition of fibrin in layers is the great preventive of rupture externally as in other directions, and even when hæmorrhage does occur it is often, as Gairdner said, "a mere oozing or succession of oozings filtered through these obstructions." On the other hand, as I have seen, the issuing stream of blood may spout up a considerable distance above the surface of the chest of the recumbent patient. In a case I witnessed, as a hospital resident, the patient survived the rupture many days. Dr. Walshe recorded a case, indeed, in which the patient "must have lived for nearly two months with a gradually increasing extent of his chest wall and aorta replaced by lint."

[3] Glasgow Medical Journal, 1891, vol. xxxvi, p. 123.
[4] Ibid., p. 125.

PHYSICAL METHODS OF DIAGNOSIS.

Inspection.

It will often happen in cases of intrathoracic tumour and aneurysm that the mere inspection of the chests puts the observer almost at once in possession of the diagnosis. It is customary in chest diseases to limit the application of inspection, regarded as a physical method of diagnosis, to the thorax itself, but, specially in the case of intrathoracic neoplasm, it is better to include all that may be obvious to the observer possessing a bearing on the diagnosis under consideration. Thus enlargement of the lymphatic glands above and below the clavicle or in the axilla may afford valuable evidence of malignant growth within the thorax. The significance of external tumour on the thorax, either from projection of an internal one, or of a superficial and essentially parietal one, requires little comment, care of course being taken to exclude superficial tumours, that have existed for many years and clearly have nothing to do with recent developments. Significant tumours in our present consideration have usually appeared recently, or there may be the scar of a surgically-removed tumour.

Intrathoracic aneurysms frequently form local projections, neoplasms less often, and in the latter case independent growth in the chest wall has to be distinguished from projection of internal growth. In the case of aneurysm the seat of projection is usually, as might be expected, the upper part of the thorax often involving the middle line in some degree and extending more frequently to the right than to the left of it. But the projection may be altogether to the right of the sternum and extend under the nipple itself, encroaching on the situation of a distended right auricle, or in rare cases of aneurysm of the descending aorta, it may be situated to the left of the spinal column. In almost all cases careful inspection over its surface will reveal pulsation, though it is astonishing how easily pulsation may escape observation when there is no projection of an aneurysm. This year only I regarded a dull area as due to intrathoracic growth because I, and those associated with me, failed to observe pulsation carefully looked for. A few days later a somewhat accentuated aortic second sound and diminution of a radial pulse were allowed more weight than at first in the diagnosis, which was changed to that of aneurysm. The patient proved absolutely intolerant of iodide of potassium, which produced quite grave symptoms, and he died in a short time. Post-mortem examination revealed a large aneurysm. Why visible pulsation was absent in this case, overlooked if you will, is a mystery to me to this day. The only explanations I can offer are: that there was much deposition of clot in the sac, and that the heart was evidently greatly depressed, which probably accounted also, to some extent, for the ill-development of accentuation of the second sound, that, along with the absence of pulsation, at first led to the erroneous idea that neoplasm rather than aneurysm existed.

The distended, enlarged, often tortuous, veins coursing over the thorax and obvious in the neck and arms form a conspicuous feature of many cases of mediastinal tumour and aneurysm. This condition is again often associated with œdema of the face, upper thorax, and arms which may reach an extreme degree. It is commonly held, I think, that such a condition is more frequently present in the case of neoplasm than in that of aneurysm, a statement with which I cannot quite agree. At any rate, I have seen most pronounced examples of the condition in aneurysm, one case in a lad of 20. Enlarged veins in a lesser degree may course over the abdomen, the circulation within them passing downward to the tributaries of the inferior vena cava.

Inspection again may indicate important disturbance of lung functions, especially immobility more or less of one side, expansion being always more affected than elevation during inspiration. A difference between the two sides—

unilateral change—is often much more obvious to the eye as regards movement than as regards mere shape. For instance, it is a familiar fact that the changes in the contour of the chest produced by copious effusion into a pleura are bilateral rather than unilateral, though difference between the movements of the two sides is marked and obvious.

With unilateral *retraction* of the chest as the result of intrathoracic tumour there will generally go excessive play of the unaffected side. Complete obstruction of the main bronchus is probably in most cases the predominant factor in the production of unilateral retraction, though the retraction may be more apparent than real owing to the abnormal activity of the sound side.

"Tracheal tugging" is usually regarded as a palpation sign of aneurysm, but the diagnostic value of the sign is much enhanced when the movement of the larynx is so pronounced as to be visible and therefore to become an inspection sign. When this happens there is probably always aneurysm present.

Palpation.

One of the specimens I have brought with me shows a most unusual condition, and one, I may say, therefore peculiarly difficult of diagnosis. I have not been able to find a similar case recorded, though Sir William Osler makes reference to such an one in his article on Aneurysm in Allbutt and Rolleston's "System of Medicine," vol. vi., p. 658—a case of Dr. Gee's. During life in my patient there seemed to be two apex beats—if I may so say—one including and not extending much beyond the normal apex situation and the other quite separate and approaching the left mid-axillary line. Moreover, the whole heart seemed to be thrust forwards in systole, much as it is when a solid mass or an aneurysm lies behind the heart and between it and the spine. This led me to think that there was an aneurysm of the descending aorta behind the heart, causing the heart to be thrust forwards in each systole, though there was always, in this view, the difficulty of explaining the absence of pulsation between the spine and the more external of the two impulses. The curious fact was ascertained by examination post mortem that an aneurysm *in front of* the heart can occasion a pulsation closely resembling that of an aneurysm or neoplasm situated *behind* the heart, so much so indeed as to cause clinically confusion between two opposite conditions. About the same time, curiously, I had in the wards a closely similar case. Although a necropsy was made, it was made on condition that no part of the body should be removed.

The peculiar thrusting forwards of the heart in systole that occurs even when a solid tumour is situated *behind* the heart, no doubt depends on the ventricles of the heart becoming a solid mass of rigid muscle in systole, which mass thrusts itself between the spine and the sternum, with its adjoining cartilages. The spine cannot yield backwards, therefore the sternum has to yield forwards. What may be called the special impulses of the heart are quite lost in a *general* heave forwards. No doubt the instruments of precision we now possess may distinguish a dual pulsation in the case of an aneurysm situated behind the heart, but my old-fashioned ideas make me apprehensive of such blending of the two impulses in the case I refer to as would make their distinction one of peculiar difficulty. Of one thing I am convinced; it is: that to the eye, at any rate, the two very different conditions—a solid tumour and a large aneurysmal sac behind the heart—occasion to the clinical observer a very similar condition, while I doubt if the most sensitive hand could convey the double impulse that must, one would think theoretically, be present in front in the case of aneurysm of the descending thoracic aorta.

A valuable sign of intrathoracic aneurysm that has its place under palpation is the diastolic shock, representing the closure of the semilunar valves, that may be felt over a superficial aneurysmal sac. This shock, no doubt, is the palpation-sign corresponding to the peculiarly valuable auscultatory sign of accentuation of the second sound, to be considered under auscultation. Thrills too, generally systolic, rarely double and possibly diastolic only, felt under like circumstances come better under the discussion of auscultatory signs, with the murmurs, to which indeed they for the most part correspond. That neoplasmic tumours may occasionally pulsate seems to be unquestionable, and the fact that the large arteries are often found post mortem undiminished in calibre, though surrounded by new growth, is noteworthy.

ARTERIAL EFFECTS OF ANEURYSM.

In the distinction between aneurysm and neoplasm within the thorax, evidence from the condition of the arteries beyond the tumour may prove of great value. A difference between the radials, for instance, is a familiar sign of aneurysm of the aorta, though the interference with the affected radial may be brought about in different ways, certainly not always by the interposition of an elastic sac between the heart and the artery examined. Sir William Osler records a case in which there was "no trace of pulsation and not the slightest throbbing in the abdominal aorta or in the peripheral arteries of the leg." The patient "had a very large area of pulsation in the left scapular region" and presumably an aneurysm of the descending aorta. Dr. Fagge described "a case once in Guy's Hospital in which the pulses at the wrists became quite imperceptible." I had myself a similar case. In such cases the warmth and vascularity of the pulseless limbs are well maintained.

Although Stokes referred to the "subclavian or carotid arteries" becoming "obliterated" as a result of malignant growth within the thorax, it is a pathological fact already considered, that the large arteries may maintain their calibre in the very centre of a neoplasmic mass. I think it may be granted that interference with peripheral arteries, in weighing evidence between aneurysmal and neoplasmic intrathoracic tumours, must go to the side of the former.

So called "tracheal tugging" has been already referred to as an inspection sign of aneurysmal tumour of the arch, but it was originally described as a palpation one. The difficulty with regard to it is that with the finger and thumb applied to the lower border of the cricoid cartilage, an impulse, distinct enough to count the pulse-rate by, may be felt in cases in which there is only some amount of dilatation of the arch and no true aneurysm. By making this sign an inspection one we get rid of its minor developments, which are of doubtful import and may only lead us into error.

PERCUSSION.

I have discussed at such length the percussion changes concerning the lungs which arise in the thorax as a result of intrathoracic tumour, that I must be brief here and speak only of such dull areas as the tumour (neoplasmic or aneurysmal) itself may occasion. The most typical area of dulness may be designated a "mediastinal dulness" and is situated at the level of the manubrium sterni and characterised by its *crossing the median line and reaching to neither costo-acromial angle.* Such dull area may or may not be united to the cardiac dulness by a neck of varying breadth and length, and it may barely cross the median line on one side while extending for a considerable distance on the other side. The lower border of a mediastinal dull area is usually convex downwards, whether or not there be a neck uniting it with the cardiac dulness. An aneurysmal sac is specially apt to extend to the right of the sternum, while such a sac springing from the transverse part of the arch may get to the left of the bone, and the more so the further from the valves it has its origin, but the less likely, on the other hand, is it then to displace the lung and reach the surface. An aneurysmal sac low down to the right of the sternum may cause a dull area entirely to the right of the sternum, lower down but at a varying level. It rarely happens that an aneurysmal sac *per se* causes a dull area behind, to the left side of the spine. In the case of neoplasm I have found such an area only when the ribs themselves were the seat of growth. The lungs may in that case escape involvement, and the parietal growth may not acquire such thickness as to annul the lung resonance.

AUSCULTATION.

There is, I think, a curiously widely spread belief that murmur is almost invariable, at least very common, over aneurysmal tumour. This is, of course, very far from being the case. Directing our attention to the physiological sounds of the heart first of all, their departure from the normal is often in the opposite direction, so that a frequent combination indeed is a practically absent first sound and an extremely loud second sound. During systole the auscultator is aware rather of an impulse—jog or push—than of sound—murmur or sound in the technical sense; of such valuable impression I presume the fashionable double or flexible stethoscope of to-day can give no indication.

In many of the cases referred to in which the first sound is indubitably absent, systolic murmur is present, though very feeble and short. The second sound, on the contrary, is of great loudness and intensity—and as we have found on palpation the hand often receives a corresponding shock. The late Dr. James Warburton Begbie called special attention to this sign of aneurysm in 1863 in a paper which Sir Dyce Duckworth has preserved for us in his Sydenham Society "Memoirs" of Begbie.

We know that there are minor degrees of accentuation of the aortic second sound commonly met with, over simply dilated aortas, and, as so often happens with regard to clinical signs, it is sometimes hard to draw the line between such accentuations and that which denotes aneurysm to the practised observer. The impression given to me by the true aneurysmal-accentuation is that of *extreme tension of the valves*, the result of the greatest force, indeed, that could be borne without actual rupture of their structure. I have no hesitation in giving such accentuation the first place among the auscultatory signs of intrathoracic aneurysm involving the ascending arch.

An interesting diagnostic point is the absence of this sign in aneurysms of the arch *that do not involve the ascending part*. An aneurysm of the posterior part of the arch separated from the valves by a non-dilated portion does not produce this sign, but it will be obvious how likely it is that the commencement of the aorta, being atheromatous, will be dilated, and, as a result, there will be a minor degree of accentuation of the aortic second sound. I have already referred to two cases having as the chief symptom paroxysms of dyspnœa, apparently not due to cardiac disease, in which the absence of accentuation of the aortic second sound seemed to negative aneurysm of the first part of the arch, the cases proving post mortem to be cases of aneurysm limited to the posterior part of the arch. The weak point of the sign, strong as it is when well developed, is the gradual transition from the *minor* accentuation of dilated aorta to the *major* accentuation of true saccular aneurysm.

Murmurs.

While I contend that the most valuable auscultatory sign of aneurysm is unquestionably accentuation of the aortic second sound, I admit, of course, that murmurs are very common. The most common murmur is the systolic, but such a murmur is of extremely frequent occurrence in many conditions other than aneurysm, and so its diagnostic value *per se* is small. Among its many causes, may be enumerated actual aortic stenosis, a dilated aorta with the orifice actually larger than normal, degrees of valve-change from slight general thickening to the marked projection of an inflammatory nodule or rigid valve, a thrombus attached to a diseased cusp, and so on. Diastolic murmur when present in aneurysm is often the merest appendage to a greatly accentuated second sound. Even when such a murmur is loud and well conducted down the sternum, the accentuated second sound may still remain to point to the nature of the disturbing process in the valve function—i.e., enlargement of the orifice, *not* diminution of the valve surface. Of cases of aneurysm, involving even the first part of the arch, it must be admitted that in a certain proportion the second sound has ceased, although the presumption is strong that at one time it had been not only present with the murmur that finally replaced it, but had been actually accentuated. In these cases there is extreme dilatation of the orifice, such as to render the valves incapable of so closing as to result in a sound.

In the case, again, of double murmur—even with accentuated second sound—the risk of overlooking aneurysm proper and regarding the case as one of simple dilated atheromatous aorta is considerable. Moreover, pathogically a dilated aorta and a diffuse aneurysm—so-called—run into one another. I draw the distinguishing line for practical purposes at the production of *pressure symptoms* in the case of true aneurysm. I have occasionally had confidence in the diagnosis of simple dilatation of the aorta strengthened by the carotids and subclavians retaining their characteristic exaggeration of pulsation, while in the case of aneurysm these vessels are apt to have their pulsation interfered with. As far as the double murmur of combined aortic *stenosis* and incompetence is concerned, *general* diminution of visible arterial pulsation is of value in diagnosis. Moreover, in its case the second sound tends towards diminution, *not* increase. Local causes, especially interference with the orifice of one or more of the large arteries by a patch of atheromatous disease, may, of course, likewise occasion diminution in pulsation of one or more of the great arteries of the neck.

As a general rule the statement may be accepted that a diastolic murmur audible over an aneurysm of the arch is evidence of incompetence of the valves, and an accompanying accentuation of the second sound is corroborative thereof. There is no incompatibility between accentuation of aortic second sound and diastolic murmur—rather should marked accentuation of the sound lead to careful seeking for the slight murmur that gives evidence of commencing leakage.

So much for the question of the auscultatory phenomena of aneurysmal intrathoracic tumours.

Murmur with Intrathoracic Tumour: Illustrative Case.

The presence of murmur has been regarded as a diagnostic point in favour of aneurysm rather than neoplasm. The rule may be accepted, but there is such an amount of exception that its value is greatly diminished. One of the best examples of murmur in a case of intrathoracic tumour I have met with may be related in some little detail, inasmuch as it illustrates other features of the disease, and I have not yet related a clinical case in any detail. It was the case of a married woman, aged 26, who, when admitted to the Manchester Royal Infirmary on July 17th, 1890, had been five months ill. Paroxysms of cough and slight hæmoptysis had been the early symptoms, curiously relieved after a miscarriage. Dyspnœa and cardiac palpitation soon, however, supervened, and she had a peculiar desire to vomit or retch with a large flow of saliva (a symptom I have recently met with in intrathoracic aneurysm also), "large quantities of clear neutral fluid" being brought up. Loss of weight and strength were progressive. There were no distended veins on the front of the chest. The whole heart seemed to be thrust forwards in systole. The left side of the chest was dull all over with the exception of a trace of resonance in the supraclavicular region. The intercostal depressions showed no levelling, and though the dulness was so extensive it did not transgress the middle line in front. The left side was immobile and vocal fremitus absent over it. There was practically respiratory silence on the left side. Over the right side there was vesicular breath sound with a few rhonchi. The heart sounds to the left of the sternum were at first normal, with the exception of accentuation of the second sound of the pulmonary artery. Over the sternum and the whole of the right side of the chest a loud systolic murmur was audible. There was no laryngeal palsy and the voice was clear. The pupils were normal. The urine was normal. Looseness of the bowels was a troublesome symptom. On July 22nd pain on the left side was complained of, and it continued more or less to the end. The temperature throughout was elevated, the fever being of remittent, irregular type. On Sept. 11th a systolic murmur became audible over the apex of the heart. On the 16th there was œdema of the feet, and the intercostal depressions on the left side were less marked. On the 22nd the intercostal depressions were becoming obliterated on the left side, while the dulness extended to the right border of the sternum, and pulsation was visible to the right of this bone. Profuse perspirations occurred, and the left side of the chest became expanded. A small quantity of pus was withdrawn from the left side of the chest. The patient died on Sept. 27th. Post mortem: The left side of the chest was expanded. The left pleural cavity was obliterated over the posterior two-thirds of the upper lobe and the posterior half of the lower lobe. The anterior and inferior portions of this pleura contained pus and blood-clot. Left lung consolidated, its lower lobe compressed. The visceral pleura showed apertures through which pus exuded. Lobes of lung adherent. Lung of firm consistence, grey colour, riddled with small, irregular cavities, with ragged walls and filled with pus. In the upper lobe near the hilus there was a mass of reddish-grey tissue continuous with a growth of the posterior mediastinum, the size of an orange, between the aorta behind and the right and left bronchi in front, and reaching as high as the lower end of the trachea and as low as the origin of the sixth intercostal artery. On the left side a process of tumour surrounded the left bronchus, the walls of which were formed of tumour

tissue: a No. 12 catheter passed through it. The growth extended half an inch to the right of the vertebral column. On section the growth was found of soft consistence and pale greyish-white colour with pink softer centre. The pericardium contained a large quantity of yellow fluid and flakes of lymph. Its upper posterior third showed nodular growth. Heart thin-walled and dilated. No valve disease. Microscopical examination showed the growth to be a lymphosarcoma.

Published reports of cases referred to in the lecture.—THE LANCET, Oct. 27th, 1888, Case of Excavated Tumour of the Lung. Medical Chronicle, December, 1890, Two Cases of Intrathoracic Tumour. Ibid., April, 1901, On a Sign of Intrathoracic Tumour involving the Posterior Mediastinum. THE LANCET, Feb. 17th, 1894, Clinical Lecture on a Case of Tumour of the Lung.

An Address
ON
SOME EARLY SIGNS AND SYMPTOMS IN NERVOUS DISEASE.

Delivered before the Harveian Society of London on Nov. 23rd, 1911,

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GENTLEMEN,—I am desirous of bringing before you to-night certain difficulties which have confronted me in the course of practice in reference to the diagnosis of nervous disease. It is often exceedingly difficult to determine whether a patient whose case is submitted to one's judgment is suffering from real structural organic disease or is the victim of functional disorder. I am bound to say that with increasing experience I find that I am much less inclined to make a diagnosis of functional disorder than I was a few years ago, and no doubt one reason for this is the increased importance which we have learnt to attach to certain symptoms, and the discovery of the weight which ought to be given to certain physical signs, previously undiscovered or regarded as unimportant. Another difficulty that occurs is, after the real organic nature of the ailment is recognised, the determination of its nature. I am afraid that there is a tendency to regard "disseminated sclerosis" as the dumping ground into which neurologists are rather inclined to shoot everything that is indefinite but organic, and perhaps the cases I am about to relate may not help to remove the impression. Yet I think most neurologists are aware of this danger and are becoming more alive to the possibility of being able, sooner or later, to subdivide the cases which we regard as examples of this disease, and perhaps to classify some of them under a different heading.

DISSEMINATED SCLEROSIS.

I remember a few years ago a patient whose case was very instructive. She was brought to see me on account of some difficulty which she had recently experienced in walking quickly. She was a young good-looking girl, and as she walked across my room nothing very obvious was noticeable in her gait except perhaps a little difficulty in preventing the toes of one foot from catching the ground. Vision was good; there was no nystagmus, no diplopia, no difficulty in using the hands, no trouble with the sphincters. I may mention also that there was a history of "emotional disturbance," and I confess that I thought the case was a functional one. However, I refused to commit myself until I had made an examination of the patient in bed. I made this examination the next day and found that there was well-marked ankle clonus on the side on which I had detected a little peculiarity in the action of the foot, and there was distinct and unmistakeable extensor response from each sole. It was then obvious that the case was an organic one, and I may add that in a few months' time it was clear that it was in every respect a characteristic one of disseminated sclerosis.

SPINAL CARIES.

Spinal caries is also a condition to have in mind in reference to any patient complaining of difficulty in walking. I always remember a case which impressed me very much at the time—that of a young girl who was a nurse at a cottage hospital in the country. She complained of difficulty in walking and of difficulty in using her left hand. The condition was regarded as hysterical, and she was urged to go on with her work. She did so until it was no longer possible, and she was then admitted as a patient to Queen-square. There were marked weakness of the legs, exaggerated knee-jerks, and ankle clonus. It was before the importance of the plantar reflex was realised. There was no distinct impairment of sensation except in one arm. Both arms were very weak, and there was much thickening about the cervical spine. The girl rapidly became worse and died a few days after admission. There was extensive disease of the spinal column and pressure myelitis.

We all know how difficult it is to get away from a diagnosis once made. In this case the idea of hysteria had apparently dominated the minds of those who saw the patient in the early stage and had continued to do so even after signs were present which should have altered this view. Two points in such a case should be mentioned: 1. That cervical caries is not always easy of detection. No curvature is usually present, only thickening about the cervical spine. 2. That practically complete motor paralysis may be present in such a case without any marked change in sensation.

SUBACUTE COMBINED SCLEROSIS.

There is a disease which has been described within the last few years under the name of subacute combined sclerosis. An early sign in this disease may be a peculiarity in walking, which resembles somewhat the walk in tabes. Yet in many such cases examination shows that the knee-jerks are active—at least in the early stage—and the somewhat anomalous gait, combined, it may be, with what may be called a slightly hilarious frame of mind, may easily mislead one into thinking the condition a functional one. And with reference to the peculiar mental state occasionally present in this disease as well as in disseminated sclerosis, it should never be forgotten that not infrequently we have a combination of hysteria with organic disease—what someone has called a hysterical picture painted on an organic background. A case of which I have published full details elsewhere illustrates this. The patient was a woman aged 60, sent to me by Dr. J. Corbet Fletcher on account of difficulty in walking. She came into the room with a somewhat high-stepping, ataxic, spastic gait; she chattered and laughed about her walking, made light of it, and apparently looked upon it as a joke. She refused to take it seriously and submitted to examination somewhat deprecatingly. She looked pale and distinctly anæmic. She had exaggerated knee-jerks and ankle clonus, and in the course of a few weeks became worse and, at Dr. Fletcher's request, was admitted to Queen-square. She was recognisable as a sufferer from the disease when I saw her first; she presented the complete picture in a few weeks and the clinical course was quite characteristic. She died within six months of her first symptoms and her spinal cord showed the characteristic changes. Yet when I first saw her the condition was one which might easily have been regarded as functional, and only functional, but for the comparatively slight signs of structural change that were present.

TABES WITH GASTRIC CRISES.

A few years ago I was consulted by a tall, well-built man, the brother of a nurse whom I knew, on account of two or three recent attacks of sickness. He described them as "bilious attacks." They came on quite suddenly, usually in the night, and the sickness persisted for several days. There was no severe abdominal pain, except in the paroxysm of vomiting, and the attack passed off without leaving anything but some weakness behind. There was no headache, and migraine, which at first occurred to me, was excluded. On examination, however, I noticed that he had small pupils, and these I found were inactive to light. There was no impairment of vision. His knee-jerks could not be obtained, and he had occasional shooting pains. There was no ataxy. It was then, of course, evident that one had to deal with a case of tabes with gastric crises, and the subsequent progress of the case—difficulty in walking, Charcot's disease of the ankle, and perforating ulcers of the big toes—confirmed the

diagnosis. In my experience cases of tabes with gastric crises are rarely ataxic, and not infrequently the gastric crises cease to recur, and the patient, although often broken down in health, is not necessarily the victim of a progressive disease. The patient whose case I have described is now, after 18 years, alive, and only to be recognised as a tabetic on very careful examination. Yet but for the presence of the Argyll Robertson pupils and the absent knee-jerks in the early stage, the true nature of the disease might easily have escaped notice.

I have been much struck by the ease with which such cases may be mistaken for abdominal conditions. A few years ago I saw in consultation with Dr. E. S. Scott, of Hampstead, a patient who some years before in America had been the subject of repeated attacks of sickness and vomiting with abdominal pains. He had first an abdominal operation which was followed by a few months of freedom from the attacks; on their recurrence, however, a second operation was done, also followed by temporary relief. What the operation was it was impossible to say, but he had two distinct large abdominal scars. The attacks had recurred when Dr. Scott saw him, and he found on examination that he had Argyll Robertson pupils and absent knee-jerks, and I could only confirm the view he had adopted that the case was one of tabes with gastric crises, and that two unnecessary abdominal operations had been carried out.

It was only a few weeks after this experience that I was asked to see at Moorfields by my colleague, Mr. G. Coats, a man who came there on account of failing vision. His previous history showed that he had had three abdominal operations at a London hospital on account, as he said, of "gastric ulcers." He certainly had three abdominal scars. His condition was one of tabes with optic atrophy, and there was little room for doubt that the three operations which had been carried out with the view of relieving abdominal symptoms were really prompted by the severity of the presumably unrecognised gastric crises from which he suffered.

ACUTE VISUAL DISSEMINATED SCLEROSIS.

There is a considerable class of cases of disease—the nervous nature of which later becomes obvious—in which the early symptoms are either visual or ocular, and are therefore of such a nature as to lead the patients to seek advice of an ophthalmic surgeon, either at a hospital or in private. A very striking case of this character was referred to me at Moorfields some months ago by Mr. W. T. Holmes Spicer. The patient was a girl, aged 21, who came to Moorfields on account of loss of sight. The history was that for about six weeks she had suffered with headache and vomiting and with great difficulty in walking on account of weakness in the legs. She was free from headache and sickness when she came, but her vision was reduced to perception of light. The reflexes were all normal, and no change in the optic discs was to be noticed. I gave my opinion that the case was one of intracranial tumour. I thought it was probably frontal and that the optic nerves were being directly pressed upon, and that this was probably the reason why there was no optic neuritis. I may briefly summarise the sequel, for we were able to watch it, as I had her admitted to Queen-square. The vision gradually improved until it became nearly normal. This was accompanied by a gradual paling of the discs. The walking power improved slightly, but the girl remained spastic with some ataxy, the knee-jerks were increased in activity, ankle clonus was present with plantar response of the extensor type, and it was then evident that the case was one of acute disseminated sclerosis. I have seen two other cases in which sudden loss of vision—naturally enough suspected to be hysterical—was the first sign in what turned out to be cases of disseminated sclerosis. In those two there was at first no associated weakness of the limbs or any change in the reflexes.

GRAVES'S DISEASE.

I am sure that slight cases of Graves's disease are apt to be missed. In some early ones exophthalmos is not complained of and is frequently not noticeable. In some cases it may be unilateral, and unless one is aware that unilateral exophthalmos is not infrequent in this disease the true significance of the signs and symptoms may not be recognised. Goitre also is by no means constant. It is in my experience especially apt to be absent in men with Graves's disease, and I remember one man with the most striking exophthalmos I have ever seen, and another who lost an eye through ulceration, and in neither case was there any goitre to be detected. The cases of Graves's disease in which the true nature of the illness is apt to escape detection are those in which the patients' symptoms are vaguely neurotic, in which goitre and exophthalmos are not noticeable, yet examination reveals a rapid heart, and inquiry elicits a history of wasting, of severe attacks of diarrhœa, and of considerable cardiac and abdominal discomfort. I believe such a combination of signs and symptoms justifies a diagnosis of Graves's disease.

And might I just add a word as to treatment and its effect in this ailment? Nothing to me has been more striking than—I will not say the curability of this disease—but the tendency to improvement. I always give belladonna in good doses, and improvement, often most striking, is the almost invariable rule. Although I personally place considerable reliance upon the drug, I have not implicit faith in it, for I have known patients in whom it failed to effect improvement become quite well without it. And I believe that given fairly good conditions the great majority of cases of this disease tend to improvement, and I have never yet seen a case in which I have thought it necessary to advise operation.

Such are a few of the points which I wished to bring before you, and I trust they may have excited your interest and may lead to discussion.

VENEREAL DISEASE: ITS PRESENT AND FUTURE.[1]

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AND
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THE problem of venereal disease, and that of feeble-mindedness, are the two most important medico-social problems of our time, and inasmuch as venereal disease augments the ranks of the feeble-minded, the two questions are closely allied. Of the ravages of venereal disease the public know nothing and consequently care nothing, while those who do know seldom care to break the professional silence, which accords with popular prejudice and apathy. In attempting to deal with this subject, while each of us is, strictly speaking, responsible for his own section, we are, nevertheless, at entire unity as regards the principles and methods by which this problem has to be grappled.

What is venereal disease? What is the present state of affairs? How are we to deal with it? These are the questions to which we invite your attention.

Soft chancre, syphilis, and gonorrhœa—these are the chief forms of disease. The chief importance of soft chancre is its possible confusion with syphilis. Though soft chancre is not a slight or negligible malady, yet both in respect of the gravity of their effects and of the numbers of persons affected, gonorrhœa and syphilis are by far the most important. Their importance is not only individual, but national, since the former affects the procreative powers of both women and men, whilst the latter may and, if neglected, always does result in the introduction into the world of children who are diseased from the very start.

Gonorrhœa is popularly regarded as a mild and not very shameful disease. Medical opinion, however, is doubtful whether, to the individual affected, it is not worse than syphilis. It may be fatal to the victim—more frequently to women than men; its complications and consequences are serious and very common; having no specific remedy of approved efficiency, it is apt, unless treated very early and very thoroughly, to become a chronic disease of indeterminate duration and perpetual inconvenience. Its infectiveness is equally indeterminate. In adults it is only acquired by sexual intercourse. A young man contracting it, and believing himself cured, may then give it to his young wife. Apart from the danger to her person, about 50 per cent. of such infected women are sterile. The majority of all young men get this disease before the age of 30, and

[1] A paper read at the Annual Congress of the Royal Institute of Public Health, held in Dublin, August, 1911.

very many marry while still infectious. In addition to the sterility which they may inflict on their wives they may be themselves sterile by reason of their own disease. The result is disastrous both to wives, husbands, and birth-rate.

Syphilis is only like gonorrhœa in that it is at first, as a rule, locally situate in the genitals of either sex. In the primary condition the local sore alone is infectious. But after a few weeks the blood stream becomes involved and the secondary stage begins. The skin and mucous membranes develop pocks and patches; mouth and throat are invaded, and the infectivity becomes general. Cups which the patient uses, pipes he smokes, cab-whistles, anything which he puts to his lips, may convey the infection to others; for this disease, unlike gonorrhœa, can be inoculated on any part of the body. If untreated he or she may remain a source of infection for about three years. After this the disease becomes latent, ceasing to be infectious to others; but for himself in this tertiary stage no part or organ of his body is free from the chance of invasion or destruction; and at the last he is liable to those diseases which are called parasyphilitic, tabes and general paralysis. Mercury has, indeed, a specific therapeutic effect on the disease, but complete cure by mercury, except under very early and prolonged treatment, is rare. For years after infection it is transmissible to wife and unborn children, who in their turn are liable to the same ills and may even transmit them to the third generation.

The early manifestations of syphilis fill the out-patient departments of general hospitals; the later stages fill the infirmaries and asylums with senseless wrecks of humanity. It is the great-pox. Small-pox we fight tooth and nail, but the great-pox, which is far more disastrous to the nation's life, is left unheeded and unchecked. As for the children of syphilitic parents, it may be said that the first child always dies, either before birth or in the first year (95 per cent.); of all children more than 50 per cent. die before their second year, while most of the remainder are marked with the disease. So we may say gonorrhœa kills the tree before it sprouts, syphilis blights and stunts its growth.

Such is a very brief outline of venereal disease, a rough sketch without colour; every medical man will be able to fill in the colour from his own experience.

The task of estimating the present position, and of suggesting how to deal with it, falls naturally into two divisions, military and civil. As regards the military side, we are in possession of statistics, and the plan of campaign is definite. On the civil side, we have no statistics and no plan of action. First, then, we will take the matter in its more definite and restricted form, returning later to the more general and more difficult side of the question.

Military Section.

The only figures on which we can rely are those furnished by the army, which are to be found in the various volumes of the Army Medical Department Reports from the year 1860 to the present date. The most obvious fact to be gathered from these figures is that the amount of disease now present is about one-eighth of what it was 50 years ago, though in the "eighties" of last century these ailments were distinctly more prevalent than they had been in the years immediately preceding. Since the year 1894 there has been a continuous rapid fall, interrupted only once (1908), when the return of a large number of men from South Africa caused a slight increase in prevalence. The amount of syphilis is now one-seventh of what it was in 1894.

The same phenomena are apparent in the curves showing the incidence of venereal disease in the army of India. The period of absolute maximum prevalence was somewhat later in this case, but the continuous fall commenced much about the same time, and has continued up to the present day.

If we look now at foreign nations, here also our information is mainly confined to military sources. In the French and German armies there has also been a marked decrease in the last 30 or 40 years. Thus in the German army between 1880 and 1888 the admission-rate per 1000 for syphilis alone was 10·2, this being somewhat higher than the average for the "seventies" (This high rate was possibly due to industrial conditions common to both countries.) It has now (1907) fallen to 4·7. The decrease of late years has undoubtedly been due to the tighter screwing up of the military machinery.

The armies of Italy and Austria both show a distinct increase. Thus in Italy, whilst the admissions for syphilis were 8·3 per 1000 in 1884–85, they were 13·3 in 1904–05, and have been in the neighbourhood of that figure for the past 20 years. In the army of Austria there has been a little variation, but the figures have been continuously higher than in the other armies of Central Europe.

The American army, which approaches most closely to ours as regards conditions of service and nationality of its component parts, has shown a steady increase in the number of admissions ever since the commencement of the war with Spain. This is undoubtedly to be attributed to the fact that the annexation of Cuba and the Philippines brought the soldier into contact with races of a lower moral tone than his own countrymen.

If we compare all armies together we note at once a great disparity in the total prevalence of diseases of this class. In the Army Medical Department Report for 1910 a table is given showing the different rates of prevalence in the armies:—

		Per 1000.			Per 1000.
Germany ...	1905–06	19·8	Russia	1906	62·7
France	1906	28·6	United States ...	1907	167·8
Austria	1907	54·2	United Kingdom	1907	63·4

It is interesting to inquire into the causes of the above disparity. The armies of Great Britain and the United States differ from those of the continental nations in the fact that the service is voluntary, while the period over which it extends is comparatively long. Thus the German soldier serves two years with the colours, whereas the British infantry private serves for seven years. The term of enlistment in the American army is longer still and the age at which men enlist considerably higher. Voluntary service necessitates a much higher rate of pay than universal service and the granting of more leisure to the individual soldier. At the same time, the longer period available for instruction permits of some relaxation in the course of training demanded of the soldier. As a consequence, the British private as well as the enlisted man of the United States army has not got his nose held so firmly to the military grindstone as their congeners in the service of the German Emperor or the French Republic. The case was well put by a German officer when discussing the question with an English *confrère*: "When we have finished with our young men in the evening," he said, "they are not in a condition to think of anything but their beds and a good night's rest."

There is one more social condition in which the British soldier differs markedly from those of France and Germany. The German soldier serves his time in or near the town or village in which he lived before enlistment. The British private, once he has left his regimental depôt, probably never again serves in his own part of the country except by accident. The former has, therefore, a certain amount of female society ready to his hand. The latter is left to pick up what society of this nature he wants from that most readily available on the streets of a garrison town.

I cannot help feeling that the blame rests greatly on the shoulders of the civilian population. In England it is by no means an unknown thing for a soldier to be refused refreshment at a public bar because he happens to wear the King's uniform. Such an event in Germany is inconceivable, and there the consequences to any individual guilty of such an outrage would be extremely serious. In this country the insult to the national uniform does not appear to affect even the renewal of the licence. Matters have improved, doubtless, since the South African war, and the extended manœuvres of late years have made the people of the country-side better acquainted with the soldier, the excellence of whose behaviour on these occasions has been repeatedly testified to by local magistrates. The more intimate acquaintance with military affairs which, it may be confidently hoped, will result from the present Territorial scheme should also have a good effect.

The soldier in the ranks is at a very impressionable age; his character is in 99 cases out of 100 what his associations make it, and his behaviour in an equal number that which he thinks people expect of him. When civilians, of social status somewhat superior to the private, learn to look on the wearing of His Majesty's uniform as the honour that it is, and pay the wearer the respect that he deserves for being ready to give his life in defence of their purses, then the soldier will respond by behaving in a manner befitting that respect. The enormous majority do it now, and have always

done it, with very little encouragement from the civil population. With regard to the minority who do not, one may say to the nation at large in the words of Mr. Kipling:—

> On your own heads, in your own hands, the sin and the saving lies.

There is yet another distinction in the conditions under which English and American soldiers on the one hand, and those of the Continent on the other, live, and that is concerned with the regulation of prostitution. As is well known, compulsory registration and periodical examination of prostitutes have been until recently nearly universal on the Continent. In these islands it was once tried and relinquished; in America it has been attempted on a few occasions but never persisted in.

It is quite open to advocates of repressive measures to argue that the great preponderance of venereal diseases in the two armies of Great Britain and the United States is due to the absence of such laws in those countries. There is only one point, however, which they must at the outset make good, and that is to prove that the incidence of venereal diseases amongst the civilian population of London bears the same relation to that amongst the civilians of Berlin and Paris as the admissions for the same class of ailments in the British army bear to those in the German and French armies. If repressive measures are efficacious they must protect the civilian as well as the soldier. If they do not protect the former, then a low rate of incidence in the latter must be due to some other causes than regulation. The question as to the incidence of disease in the civil population will be dealt with in the later part of the paper.

The most definite fact of which we are in possession is that the admission rate for venereal disease in our army has fallen greatly in the past 25 years, that for syphilis having decreased by four-fifths. An investigation of the causes of this fall, which has affected the entire force both at home and abroad, may throw some light on the prospects of future reduction, and also perhaps indicate the lines on which we should work with a view to attaining that end.

In the first place, then, the reduction is in no way connected with repressive measures. These were in force under the name of the Contagious Diseases Acts in 14 selected stations, in greater or less severity, from 1864 to 1886, in which last year, in deference largely to popular agitation, they were repealed. During the earlier part of that period their enforcement synchronised with a decided fall in the admissions in the protected stations, whilst those from the unprotected stations remained practically stationary. The initial fall in the protected stations did not, however, continue, and for the ten years prior to repeal in 1886 there was a steady increase in all stations, protected and unprotected.

It is open to advocates of the system to urge that the opening fall was due to the rigid enforcement of the Contagious Diseases Acts, whilst the subsequent rise was the result of a lax enforcement of the regulations, due to their unpopularity with the general public. This does not explain the simultaneous rise in the unprotected stations, though it might be suggested that during this period a general increase in these diseases occurred, which regulation was able to check in the case of the protected stations, but not entirely to prevent. This last argument of course weakens the position of those who hold that repressive measures can absolutely prevent disease. It is difficult on either line of argument to explain the steady fall throughout the army which began almost in the year of repeal, and has continued ever since. In India again the enforcement of regulation did not prevent a steady rise, whilst the discontinuance of this system has not interfered with the subsequent fall.

The evidence, then, points clearly in my mind to the fact that, whatever other effects regulation of prostitution may have, the stopping of venereal disease is not one of them, and whatever the results may be of repeal, it is not incompatible at least with a diminution of admissions from this cause. Continental military medical officers have come pretty generally to the same conclusion, more especially in France, where it is recognised that clandestine prostitution, which avoids regulation, practised by waitresses at low-class restaurants, servant girls, and others, is the predominant cause of disease.

The true explanation of the diminution in the admission-rate of amount of venereal disease in the army lies, I believe, in an improved moral tone amongst the men, accompanied by a decided increase in temperance. This last is, in my opinion, the most important factor, but I wish to emphasise the point that by temperance I do not mean total abstinence or the signing of a pledge. The temperance that needs to be fortified by some adventitious aid such as the wearing of a badge is often the sign of a nature so weak that if it is bolstered up in one direction it is apt to collapse in another. The temperance to which I refer is that which enables a man to take his beer in the quantities that are suitable to him, that enables him not only to know when to stop, but also actually to stop at that point. That there has been a great increase in this true temperance in the army is beyond all doubt, and I repeat that it is to this cause that we must attribute the present improvement.

Other causes have coöperated to a certain extent, and amongst these one must include improved methods of treatment and administration. Every man in the army has a record kept of his ailments on what is termed his medical history sheet, and we are thus enabled to keep track of the men who have at any time suffered from any particular disease. In addition, any man who contracts syphilis has a separate record in the form of a syphilis sheet. On this very full particulars of all symptoms and treatment are entered, and the document accompanies the man wherever he goes, so that any medical officer under whose care he comes can tell precisely the stage at which the disease has arrived and the treatment previously adopted. In addition, a special register is kept (the syphilis record) in which the names of all men under treatment from the disease are entered, so that at any moment any medical officer can ascertain the number of men in the station actually under treatment and their identity. The record is not closed until a man has undergone a two years' course of treatment and been free of symptoms for a year. These periods can be extended by the medical officer if he thinks the course desirable.

Improved methods of treatment, which are at present on trial, may enable us to shorten the length of time under treatment, but so far no modification has been made in this direction. The number of admissions to hospital is undoubtedly affected to a certain extent by the adoption of out-door treatment in cases where the symptoms are slight and not obvious to outer view. This applies, however, only to syphilis, and mainly to the secondary manifestations of the disease. The other forms are unaffected, and there the apparent improvement is an actual fact.

For the future we must look forward to strengthening the soldier's moral character by education, and affording his physical energies free outlet in some form of sport. A great deal has been done in the direction of providing rational evening amusements, more especially in India in the Garrison Soldiers' Homes which now exist in most large stations in that country.

It is sometimes suggested that disciplinary measures should be used to punish men who contract venereal disease, such as depriving them of a portion of their pay while in hospital, in addition to the habitual hospital stoppage. The measure has a plausible appearance at first sight, but, like many other similar administrative measures, it would merely defeat its own object by leading to concealment of disease. With the young man who has contracted disease, every effort should be made to encourage him to seek early treatment. There is nothing so dangerous as delay, and any prospect of punishment may tend to lead to this. With the hardened sinner the case is, perhaps, different, and it might be permissible to deal somewhat severely with the man who repeatedly incapacitates himself from duty by contracting fresh disease. Most culpable of all, of course, is the individual who, whilst under out-patient treatment for syphilis, contracts some other form of venereal disease. On the whole, however, it is better to err on the side of mercy than severity in this matter.

In some services it is the rule to provide men with facilities for personal ablution after connexion, and in the United States small "venereal prophylactic kits" are issued. These consist of small packages containing antiseptic solution and ointment and a little cotton-wool. This system was practised largely in the Philippines with success. The issue was preceded by a lecture in which the dangers associated with irregular intercourse were pointed out, and continence was shown to be not only harmless but positively beneficial. Finally, the method of use of the prophylactic kit was described. The obvious line of argument that such a lecture gives rise to in the soldier's mind must be something of the

following nature: "If intercourse is not a necessity, and if, as my officer says, I shall be a better and healthier man without it, why does he go out of his way to show me how I may indulge in it with impunity?" It is no duty of any authority to assist men to be vicious with impunity; such measures are degrading to the officers who have to advertise them and lowering to the men to whom they are addressed.

Civil Section.

When now one turns from the military aspect to the civil there is a complete change. There are no statistics, and if there were we should be at a loss how to deal with the patients, since they do not, as in the army, come under direct control. Yet we must at least try to make some reasonable estimate of the incidence of venereal disease on the civil population, and to suggest the principles and methods by which to combat it.

Now, can we, from the figures which we do possess, draw any conclusion as to our present position? In the Army the figures stand at a quarter of what they were 25 years ago and in the Navy at about half. But the special conditions of the services as regards age and sex make it clearly impossible to argue from these returns to the civil population. The German army, for instance, shows a very low and still decreasing figure—far lower than ours; yet Dr. Blaschko tells us that the civil figures are high, higher than ours, and still on the increase. The army returns, therefore, do not help us.

Then there are the returns of the Registrar-General. Deaths from venereal disease in these returns show in 25 years a decrease of 33 per cent., as also do the deaths from the same cause in infants under one year. This would be gratifying; but death certificates, while true as far as they go, do not always give the whole truth, and sorrowing relatives are probably becoming more and not less sensitive to the contents of these papers, while the doctor is reasonably anxious not to hurt their feelings unnecessarily. So that we should do well to receive these figures with caution.

But there is another class of return which we may, I think, consider of good value—namely, the numbers of recruits annually rejected from the army for venereal disease. This is, indeed, an army return; but it may be considered a fair index of the state of affairs in the young adult civil population. Taking now these returns since 1863, the first thing which strikes one forcibly is the great and steady decrease in syphilis, from the appalling figure of 16 per 1000 to 1·5. The second thing is the steady persistency of other venereal diseases at the level of about 2 per 1000 for the last 40 years, rising in the last five years to 3·5, and still apparently increasing. By these figures, therefore, we should conclude a decrease of all venereal disease to a quarter of its former bulk, the whole decrease having occurred in syphilis.

Syphilis then, from being a deadly pestilence, has become of manageable dimensions, while the inroads of gonorrhœa are increasing. As Sir J. Hutchinson says, this is not a time for panic; but, in our view, it is a time for vigorous and well-considered action. Even if we suppose that syphilis has decreased all round in this proportion, which is very doubtful, the conditions still are serious enough, as we shall see.

Let us go for a moment to Berlin, Paris, and New York. Berlin is a city of 2·1 million persons. Of these about 670,000 are adult males. On a given date in 1900 142 per 10,000 adult males were under treatment. About 4/5ths of the total were recent cases. Of these recent cases 1/6th were syphilis and 5/6ths were other venereal diseases. Their average treatment is given at about 45 days, a liberal estimate as it appears to me. The female incidence is between one half and one-third of the male, according to the best authorities. This, when worked out, gives us a figure of 85,000 fresh cases of venereal disease annually in Berlin, or 1/25th of the whole population.

Paris is a city of 2¾ millions. There it would appear that about 17,000 persons are annually infected with syphilis, and if the same proportion to other venereal diseases obtains there as in Berlin, we get an annual total of over 100,000 for Parisian venereal disease, or 1/27th of the total population.

New York is a city of 4½ million inhabitants. Dr. Morrow holds that there are "over 200,000 infected persons walking the streets of New York," and Bierhof believes this an underestimate. If we consider this expression to represent the number annually infected, the proportion of the population attacked is about the same as in Berlin or Paris. Here also about 1/6th of the numbers are due to syphilis.

In all these cities about 1/12th of the adult male population are infected annually, and about 1/30th of the adult females. Roughly 1/25th of the whole inhabitants. The significance of such figures may be appreciated when Dr. Blaschko gives as his opinion that in Berlin every man who reaches the age of 30 has (on an average) had gonorrhœa twice, and every fourth or fifth man has had syphilis.

How can we compare London with Berlin? Here again, the recruiting figures come to our assistance. British recruits show—in regard to venereal diseases—a figure at present of 5 per 1000, while those of Germany show about 7½ per 1000. (These are in each case the latest available figures.) Of course, the comparison must show in our favour, because of the far-reaching difference between voluntary and compulsory enlistment; but we shall take these figures at their face-value, since we wish our estimate to be conservative. Let us assume, then, that in Germany the proportion of venereal disease is half again as great as in Britain. London is 3½ times the size of Berlin. Allowing the full deduction of one-third, we reach the figure of approximately 200,000 fresh cases of venereal disease annually in London.

A peculiar interest attaches to the fact that the proportion of disease, and also the proportional number of prostitutes, increase with the size of the town. In German towns other than Berlin of over 100,000 people, the proportion of disease is only 70 per cent. of that of Berlin; in towns of 30,000 and over, 40 per cent. of the Berlin proportion, and so on. Again, in New York there is said to be 1 prostitute to every 57 of the population, while for the smaller towns in the States, of say 30,000, the proportion falls to 1 in 400. It is a question of demand and supply; the demand by a given number of men is greater in the large towns than in the small. Thus there is a close correlation between the number of such women and the amount of disease, the proportion of each rising with the size of the town.

The point of these remarks is this. The large towns of Great Britain, other than London, of over 60,000 inhabitants contain between them about 15 millions of people, or about twice the population of London. Allowing them half the London incidence we shall get another 200,000 per annum; 400,000 cases thus account for 22½ millions, or half the whole population of the United Kingdom. The smaller towns and country, the other half, may be expected to contribute about 100,000. Thus, we should reach a total annual toll to venereal disease in the United Kingdom of half a million.

These are not statistics; they are only reasoned computations, and, as such, are open to reasoned criticism. Rough as they are, they will give you some idea of the calamitous quantity of these diseases, of which I have already described the disastrous quality.

(To be continued.)

TREATMENT OF GRAVES'S DISEASE WITH THE MILK OF THYROIDLESS GOATS.

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IN two previous communications[1] the results following this treatment have been recorded; it is now proposed to add further cases and to draw some general conclusions. As to the already recorded cases, the second is now well. The third is extremely important. It was found by careful observation that the dried blood from a thyroidless goat caused diarrhœa, when it was of course stopped; after that no specific treatment was given. The patient became gradually worse; much œdema of the legs came on, and in September, 1911, she died from cardiac failure; in all probability the thyroidless milk treatment was of no benefit in this case. In the fifth case at the time of the last report (December, 1908) the supply of thyroidless milk had stopped, and a few days after this, and apparently in consequence of it, the patient was much worse, more tremulous, weaker, and liable to attacks of pain in the region of the heart, with shortness of breath, attacks which the patient had not suffered from since she first came under treatment nine months previously.

[1] THE LANCET, Jan. 25th, 1908, p. 227; and April 10th, 1909, p. 1040.

She was therefore admitted to hospital, and was there treated with thyroidectin, grains 5, three times a day. She improved under this treatment and left. During the spring and summer of 1909 the patient took the goats' milk, and as the supply was limited she also had X rays applied to the goitre. In the autumn thyroidectin was also given. The patient was now readmitted to hospital. She was much better than when in hospital before; the goitre was much smaller, presumably in consequence of the X rays, and the tumour could be distinguished into a hard central oval mass and two soft, lateral lobes. She remained in hospital a month. After that the X ray treatment was continued for four months, sometimes once, sometimes twice, a week. Notwithstanding the insertion of thicknesses of towel between the lamp and skin some redness was caused. Latterly the patient had to leave the neighbourhood. She writes that the goitre has increased in size.

CASE 10.—The patient was seen in October, 1909. She was better, but the eyes were still prominent; the goitre was firmer.

CASE 11.—The patient was presented with a thyroidless goat, and during the summers of 1910 and 1911 took its milk. She is much better and can ride a bicycle.

To the foregoing the following cases may be added:—

CASE 16.—The patient, a male, aged about 35, under the care of a medical friend, came under treatment in 1908. During the winter 1908–09 he was treated with rodagen and thyroidectin, but no improvement occurred; on the contrary, the patient became somewhat worse. It was therefore decided to try a course of rest in bed. Up to this time the patient had been going daily to business, but now for five weeks he rested in bed, and at the same time took the milk from a thyroidless goat. He improved under this treatment, but the pulse still continued fast. He then went to the seaside and discontinued the milk. Here he improved. Now (July, 1911) the patient is much better and attending regularly to business. He has much faith in rodagen, which he therefore still continues to take.

CASE 17.—The patient was a young single woman, under the care of a medical friend. Symptoms commenced obscurely about six years ago. In the spring of 1909 the patient was seriously ill, the main symptoms being a large goitre and attacks of dyspnœa. The patient went to the seaside, and was treated with the milk from a thyroidless goat for 20 weeks. She improved very much. Later the milk treatment was resumed. When last heard of the patient was so much better that she was about to be married.

CASE 18.—The patient was a young woman, suffering from severe Graves's disease; a sister had previously died from the same complaint. For six months during the summer of 1910 the patient took the milk from a thyroidless goat, but there was no benefit apparent, and in the autumn she died. This was a very severe case, and one in which a bad prognosis had been given early.

CASE 19.—The patient was a single young woman, suffering from Graves's disease of moderate severity. Enlargement of the thyroid first noticed five years ago; the Graves's disease was at its worst about 18 months ago. The patient went into the country, where she had the milk from three thyroidless goats, and was much better at the end of the summer.

Remarks.—The effect (if any) of the treatment of Graves's disease with the milk from thyroidless goats or preparations made from it must depend in a considerable degree on the dosage. Clearly a sufficient dose must be given. One of the preparations is said to be made by mixing the dried milk with an equal quantity of sugar of milk, which is added as a preservative; one ounce of dried milk would correspond with about four ounces of the whole milk. If, then, one-drachm doses of the mixed powder were given, each dose would correspond to two drachms of fresh milk; and if the doses were ordered three times a day they would correspond to six drachms, or possibly one ounce, of the milk a day. But when the fresh milk is given it is usual for the patient to take the whole yield of one goat, which may be a pint or a quart a day; sometimes a litre (35 ounces) is prescribed. In one of the cases above recorded the patient was taking at one period about two quarts of the milk a day; if this is anything like the right dose (and it certainly did no harm) three drachms a day of the powder would be much too small. Further, to give the powder on the scale the fresh milk is given would cost about 33*s.* a day.

It is thought that the symptoms of Graves's disease are due to excess of thyroid secretion in the circulation. Some experiments were made on this view. Rats were given doses of thyroideum siccum half a grain twice or thrice a day, and were fed, some on the milk of normal goats and some on that of thyroidless goats. All the rats died from thyroid poisoning, but the rats fed on the normal milk lived longer than those fed on the thyroidless milk.[2] This difference cannot be accounted for by any difference in the amount of calcium in the milk, because Mr. Cecil Revis found in an analysis he kindly made for me that the amount of calcium was practically the same in the two.

The part that calcium plays in the results of complete removal of both thyroid and parathyroids is remarkable. Dogs and cats fed in the ordinary way almost always die within a week of the operation with symptoms of tetany; if, however, they are fed on milk only, and given lactate of calcium in addition, they will in many cases recover. I have now two dogs and one cat which have been living in good health without either thyroid or parathyroid for months, but they are being fed almost exclusively on milk. On this account calcium lactate has been recommended in the treatment of Graves's disease. There is no objection to this, but it may be pointed out that these patients are often taking a considerable amount of milk, and that ten grains of lactate of calcium only contain the same amount of calcium as there is in two ounces of cow's milk.

The tremors of Graves's disease are certainly suggestive of the tremors which occur after total excision of thyroid and parathyroids, and as calcium is of immense importance in the treatment of these it seems advisable to give it in Graves's disease. The best way to do so is by giving milk, either cow's milk or goat's milk, but there is no strong evidence that the milk of a thyroidless goat is better than that of a normal goat. Moreover, the theory on which the "anti-thyroid" treatment is based is not above criticism; removal of the thyroid gland in goats must tend to produce, indeed sometimes it does actually produce, myxœdema. This tendency should cause an antimyxœdema body to be formed; this would be a pro-thyroid body and tend to make Graves's disease worse. Again, Graves's disease is not unfrequently followed by myxœdema, and in some cases the symptoms of the two diseases coexist. It seems, therefore, probable that in long-standing cases we may have to treat not hyperthyroidism itself, but its permanent secondary effects combined very possibly with a certain amount of hypothyroidism.

Dr. John Rogers, of New York, has prepared a specific serum for the treatment of thyroidism, to which condition he attributes the symptoms of Graves's disease, and he gives a report of 42 cases in which the serum was used.[3] A satisfactory case of the treatment with the milk of a thyroidless goat is recorded by Sir Thomas Myles.[4] Similar results have been obtained by Dr. J. R. Gilmour, of Scalebor Park,[5] and another satisfactory case is reported from Scotland.[6]

Devonshire-place, W.

ENURESIS AND THYROID EXTRACT.[7]

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IN 1909 Dr. Leonard Williams published some striking cases in which thyroid extract had proved beneficial in cases of nocturnal enuresis. In his paper[8] he states, "We have seen in all 25 cases; of these only one has failed to respond to the thyroid treatment." Stimulated by these results, I commenced to treat some cases with this preparation. In all 28 cases were treated at the Victoria Hospital for Children, unselected and consecutive, and a record kept of pulse, temperature, weight, and number of nights during which enuresis occurred. The children attended hospital once weekly, and, as far as possible, no change was made in their mode of living while the thyroid extract was being administered. Adenoids were not removed, although this has been done in several cases since, and no anthelmintic was ordered

[2] Proceedings of the Royal Society of Medicine, Pathological Section, February, 1911.
[3] Transactions of the Association of American Physicians, vol. xxi., 1906.
[4] THE LANCET, Feb. 1st, 1908, p. 292.
[5] Journal of Mental Science, vol. lv., p. 668, 1909.
[6] Brit. Med. Jour., March 11th, 1911.
[7] From an M.B. thesis, Cambridge, 1911.
[8] THE LANCET, May 1st, 1909, p. 1245.

in cases harbouring threadworms. When the mothers had been in the habit of "lifting" the children on retiring themselves, they were instructed to continue the practice, but where it was not done, this method of treatment was not recommended. Of the 28 cases, 16 showed a marked improvement or were cured, and 12 did not improve at all.

For purposes of comparison the cases have been divided into two groups—A, those with improvement; B, those without improvement. In both groups the figures are too small to allow the slight variations in age (at which treatment was commenced) or sex to be of value. The remarkable preponderance of females over males, 19 to 9, seems to be usual, as of the last 89 cases of enuresis attending hospital, 61 were females.

The most striking feature of Group A was the number of backward children it contained; 12 out of 16, compared with 2 out of 12 in Group B. The mental condition was necessarily founded on the report of the mother or school teacher, and was ascertained in all cases before treatment was commenced.

The cases which appear to react to this form of treatment better than all others are those in which the enuresis has persisted since birth, and in which the patients are also backward. There were 5 of these cases, all of which showed marked improvement. Seven cases with enuresis from birth were stated to be quite satisfactory as to the mental condition, and only one of these improved. Of the 16 cases in which the enuresis started during childhood, 6 out of the 10 improved were backward compared with 2 out of 6 not improved. The duration of the acquired enuresis was of no importance in prognosis.

In 7 cases in Group A hypertrophy of tonsils and adenoids was present, and 4 had undergone operation for this condition. In Group B 4 children were similarly affected, and one child had had them removed. In no case could any connexion be traced between operation and enuresis. In no case could the enuresis be ascribed to the genitalia, whilst threadworms had been noticed in 3 cases of those improving and in two cases amongst those who received no benefit by treatment. In 3 cases the enuresis could be traced to a definite exciting cause, an operation for hernia, scarlet fever, and enteric fever respectively. The first of the cases (No. 2) was cured, but the other two (Nos. 13 and 14) did not respond really well to the treatment.

An attempt was made to obtain data for controlling the effects of the thyroid extract from observations on the pulse, temperature, and weight. The pulse-rate did not give any definite evidence of overdose until diarrhœa commenced, and showed wide variations in uncomplicated cases. Had the children been under observation in hospital where the pulse could have been recorded twice daily, thyroidism would probably have been detected by the increased pulse-rate before the onset of diarrhœa made it obvious, but a weekly attendance and the likelihood that the accompanying excitement will disturb the pulse-rate seem to render the pulse an untrustworthy guide, and to explain the differences noticed for which no definite cause could be otherwise assigned.

The temperatures were taken in the rectum and varied between 98° and 100° F. before treatment commenced; all cases except five showed an average rise of about 1° while under treatment, but there was no distinctive feature about the behaviour of the temperature in either group.

The initial weights showed more variation—according to the table given by Holt[9] the percentage of children below normal was equal in both groups, but of the cases showing a weight of 6 lb. or more below the average Group A contained 50 per cent., compared with 30 per cent. in Group B. The children, with one exception, gained weight while taking thyroid extract, and no reason could be found to account for the exception.

The initial dose was ¼ or ½ grain daily and the rate of increase varied much as the work was experimental; often the dose was increased every 14 days. In some cases which showed improvement, but in which the condition had become stationary, the same dose was continued for a month or more. The accompanying table gives the rate of improvement and the doses administered each week to the children in Group A. Nos. 13, 14, and 16 can only just be called improved; six cases—Nos. 1, 2, 3, 5, 9, and 10—also suffered from diurnal enuresis, and this condition was cured in every case.

[9] Diseases of Infancy and Childhood fourth edition, p. 20

As it is most important to ascertain if the improvement following the administration of thyroid extract is permanent a note was sent to the parents of all the cases in this group inquiring into the condition of the child. Replies were received in ten cases, and together with a few brief explanatory remarks are given below. When a period of time is given the interval between the cessation of treatment and the receipt of the reply is indicated.

Remarks upon the cases.—1. Three months. No recurrence.—2. Six weeks. No recurrence; dose gradually reduced after twelfth week.—4. Eight months. "Never more than twice weekly and often less."—5. Quite cured; enuresis gradually ceased.—6. After the twelfth week the child attended for 14 days, taking the same dose with no variation in the enuresis. Chorea then developed and the treatment with thyroid extract was discontinued.—8. Six months. Enuresis only occasionally, about once a month.—9. Treatment was stopped for diarrhœa. The patient's mother reported to me at the end of the first and second months following cessation of treatment that enuresis had occurred six times during the first month and four times during the second.—10. Five months. The patient only wets the bed when her mother "forgets to lift her."—11. Seven months. The mother expressed her regret that she had ceased to attend, and reported that the boy still wetted the bed on an average twice weekly.—12. Six months. Has only wetted the bed about half a dozen times in all.—13. Although included in the table this patient was eventually cured by atropine. During the last three weeks the child took 4½ grains of thyroid daily with the result shown. Immediate improvement took place when liq. atropinæ was given, and after five weeks the enuresis ceased. This child was not at all backward, and although the case is included in the table to show that some benefit accrued from thyroid extract the real improvement is attributable to the atropine.—14. This patient continued to attend at irregular intervals for nearly two months after this, and was at one time taking 2 grains in 24 hours. The enuresis still occurred on two or three nights per week, and when I saw the child with scarlet fever a year after treatment had first commenced the condition was unaltered.—15. Attended another three months at intervals of 14 days, taking the same dose with the same result. The patient then discharged herself, but three months' later was reported as only wetting the bed one night a week or less.

A table of the unsuccessful cases is not given, as the treatment followed exactly the same lines and lasted on an average five weeks, except 3 cases which extended over 12 weeks or longer. No improvement of any sort could be detected. Diarrhœa caused the treatment to be abandoned in 4 cases, and the occurrence of this complication, five times in 28 cases, was the only difficulty encountered; it soon ceased when thyroid extract was not given, but it indicates the necessity of using small doses on commencing treatment and careful observation afterwards. Three of the patients, aged 5, 8, and 11 years respectively, were taking 1 grain, and one, aged 9 years, 1½ grains in 24 hours. The fifth case, a boy, aged 4½ years, appeared to be extremely susceptible, as he developed diarrhœa on a half-grain dose daily. The weight of all these children was within a pound or two of the normal, and none of them had been classed as backward. Case 13 in the table was also probably an example of overdose. When in the ninth week improvement commenced, the dose was rapidly increased, and was followed by a relapse till finally the last stage was as bad as the first. Dr. Leonard Williams quotes a somewhat similar case.

In the unsuccessful cases the treatment was abandoned when a dose of 2 grains in 24 hours failed to produce even slight improvement, as it seemed that any case which would improve showed signs of so doing before this amount was reached.

It cannot be asserted that the results obtained were nearly as satisfactory as previous accounts have led us to expect, but when we consider that two cases were cured, that nearly 60 per cent. of the cases showed marked improvement, that of these all except one had suffered from enuresis every night in the week and many for a considerable period, it is evident that thyroid extract has taken a definite place in the treatment of enuresis, and in certain cases may be exhibited with more confidence than any other drug with the exception of belladonna.

Table showing Results in 16 Cases of Enuresis Treated by Thyroid Extract.

Case.	Years of age.	Duration of enuresis.	Number of nights per week in which enuresis occurred before treatment.	After treatment commenced—	Week of treatment.												
					1st.	2nd.	3rd.	4th.	5th.	6th.	7th.	8th.	9th.	10th.	11th.	12th.	13th.
1	3	Since birth.	7	Enuresis occurred ...	0	0	0	0	1	0	0	—	—	—	—	—	—
				Dose of thyroid in 24 hours (in grains)... ...	¼	¼	¼	¼	¼	¼	¼	—	—	—	—	—	—
2	4½	10 months.	7	Enuresis	4	4	5	7	5	2	1	2	0	0	0	0	—
				Dose	½	½	½	1	1	1½	1½	1½	1½	1½	1½	1½	—
3	7	3 years.	7	Enuresis	5	2	2	1	1	2	Ceased attending. No reply to card.						
				Dose	¼	¼	¼	½	½	¾							
4	6	3 months.	7	Enuresis	2	2	1	2	1	0	1	1	Ceased attending.				
				Dose	½	½	½	½	¼	¼	¼	¼					
5	10	Since birth.	7	Enuresis	2	1	1	4	4	2	2	1	2	2	1	Ceased attending.	
				Dose	½	½	½	½	½	1	1	1	1	2	2		
6	6	Since birth.	7	Enuresis	4	0	0	3	2	3	1	1	1	2	2	2	2*
				Dose	½	½	½	½	1	1	1½	1½	1½	1	1	1	1
7	9	3 years.	7	Enuresis	2	0	0	Ceased attending. No reply to card.									
				Dose	½	½	½										
8	8½	Since birth.	7	Enuresis	2	1	0	1	1	0	1	0	Ceased attending.				
				Dose	¼	¼	½	½	½	½	½	½					
9	8	1 year.	3–4	Enuresis	3	1	0	1	0	Diarrhœa; treatment stopped.							
				Dose	½	1	1	1	1½								
10	5½	Since birth.	7	Enuresis	4	4	2	2	Ceased attending.								
				Dose	¼	½	¾	¼									
11	6	Since birth.	7	Enuresis	4	3	2	Ceased attending.									
				Dose	¼	¼	¼										
12	11	2½ years.	7	Enuresis	3	1	1	1	1	1	2	2	Ceased attending.				
				Dose	½	½	½	½	½	1	1	1½					
13	7	1 year.	7	Enuresis	7	7	7	5	6	7	4	3	3	3	4	6	7
				Dose	½	½	¾	1	1	1	1½	2	2	3	3	4½	4½
14	12	7 years.	7	Enuresis	7	7	7	6	5	2	3	Attended at very irregular intervals after this.					
				Dose	½	½	¾	¾	¾	1	1						
15	9	10 months.	7	Enuresis	3	2	3	3	2	2	1	1	2	1	1	1†	—
				Dose	½	½	½	¾	¾	1	1	1	1	1½	1½	1½	—
16	12	3 years.	7	Enuresis	3	3	4	3	2	Ceased attending. No reply to card.							
				Dose	½	1	1	1½	1½								

* Developed chorea. † See No. 15 under "Remarks upon the cases."

The dose, it must be noted, was much smaller than that given in Dr. Leonard Williams's series of cases, but five cases of diarrhœa in a total of 28 could hardly be coincidence. That the diarrhœa ceased when the thyroid was withheld and that only one case, that of a boy 11 years of age, occurred during the hot weather (1910) reasonably prove the thyroid was the most probable cause.

When the child is backward, slow at school, or displays other signs of mental lethargy, and especially if the weight be markedly below the average, the use of this preparation holds out a very fair prospect of success. Definite and permanent improvement appears to occur, even if the cure is not absolute, for not one of the replies received indicates serious relapse.

The dosage employed was doubtless rather small, but the onset of diarrhœa in two of the early cases rendered me chary of administering the drug in large doses to out-patients, and its occurrence in three more cases confirmed me in this, but possibly with a more rapid—i.e., weekly—increase of dose more speedy results would have been obtained.

As indicated above, both pulse-rate and temperature are untrustworthy, when only taken once weekly, in providing danger-signals of thyroidism, again an argument in favour of caution; but where the patient is under constant observation, as in hospital, the dose might be rapidly increased with safety, especially in the case of the undersized, backward child.

Eight children in the second group were treated with atropine, and of these 5 showed marked improvement. I have had little experience of the effect of thyroid extract in cases in which belladonna has failed, 2 only, both encountered after drawing up this series of cases, and both up to the average standard mentally and physically.

In the days before thyroid extract had been suggested as a cure for nocturnal enuresis, I saw some cases in which the improvement caused by atropine in backward children was as marked as the cases of this series treated by thyroid extract, and it seems probable that if an equal number of unselected cases were treated with atropine alone the results would be as good, if not better, and that the greater percentage of unsuccessful cases would occur amongst the type of child commonly called "backward," the type in which thyroid extract is most successful.

THE USE OF ROSENBACH TUBERCULIN IN SURGICAL TUBERCULOSIS.

BY GEH. MED. RAT PROF. DR. FRIEDRICH J. ROSENBACH.

(*In Charge of the General Surgical Clinic of the University in Göttingen.*)

THE treatment of surgical tuberculosis is at present one of the most unsatisfactory tasks of the medical man. Advanced, serious, and extensive disorders, as well as quite recent but easily accessible foci, frequently repay, it is true, radical operations. On the other hand, many local manifestations of tuberculosis—e.g., spinal tuberculosis—cannot be submitted to radical operations at all, others only by the sacrifice of functions or of appearance or by mutilation. In recent cases when the symptoms are slight it is difficult for a medical man to decide on such operations. He is uncertain whether the sacrifice will bring about even local cure, let alone complete freedom from tuberculosis. He is therefore bound to have recourse to less radical measures, such as fixation, the congestion method, and general treatment, whilst awaiting any further development which may prove favourable. Naturally this is not the ideal treatment, such as might be sought in an effective chemotherapy. Here some slight progress has been made by the injection of iodoform into tuberculous joints, but for general application in tuberculosis this remedy has not proved any more valuable than the countless other attempted remedies.

During a general clinical and surgical activity of 36 years I have tried chemical agents of every sort against local tuberculosis, without any real success. In the face of the

unsuccessful use of Koch's Alt-tuberculin I had no leaning for a long time towards immune therapy—that is, the use of tuberculin. At last, I did indeed come to treatment by tuberculin, but using a new tuberculin. A study of the biochemical reciprocal effects of bacteria and plants led me to submit a culture of tubercle bacilli to the action of a trichophytonmyces. From this resulted the preparation of a new tuberculin, in which the poisonous constituents are destroyed and the immunising constituents preserved.[1] The firm of Kalle and Co., A.G., Biebrich-on-the-Rhine, has undertaken the manufacture of this new tuberculin and under my control has delivered large quantities to hospitals and clinics for experimental purposes, the quality of which has been uniformly unexceptionable.

This tuberculin is used in two ways: the first is by means of subcutaneous introduction into the circulation for the treatment of inaccessible local tuberculosis. It is then, like other tuberculins, retained in the foci by elective combination. It here produces inflammatory exudation with accumulations of leucocytes, absorption of tuberculous tissue, and thus a pronounced curative process. The second method of administration is by means of direct injection into the diseased foci—e.g., joints, tendon sheaths, lupus, &c. In this case the tuberculin produces the same process, but much more intensely. The inflammatory exudation and the leucocytic infiltration is as intense here as in acute cellulitis. The soft parts become very red, are hot to the touch, hard, painful, and there is extensive swelling. Any hollow spaces existing—e.g., joints—are extensively filled with fluid. At the same time general symptoms are observed, such as indisposition and increase of temperature. All these symptoms disappear at once without doing any harm and leave behind a striking improvement of the tuberculous affection. Where the tissue has not yet suffered any vital damage from tuberculosis—that is, where there is no ulceration, granulation, caseation, &c.—it is often possible that a few injections completely cure joints and tendon sheaths, &c., in particular where tuberculous infection is recent.

On the other hand, parts where ulceration, granulation, caseation, and necrosis are already present become inflamed, so that suppuration accompanied by indisposition and fever ensue, and closed parts—e.g., joints—open and discharge this pus. Even then, if the treatment is continued, a cure with contraction is possible by the gradual expulsion of substances which are not capable of absorption, but, as a rule, the cure must be completed by operation, scraping, thermocauterisation, removal of affected bones, articular resection, &c. Even in lupus it is necessary, after the affection has been diminished and softened by the injections, to remove the affected parts by operation.

I have treated a number of cases of surgical tuberculosis with Rosenbach's tuberculin, and last year I reported three of them,[2] but at that time under reserve of further observations, so as to convince myself that the results were permanent and the treatment satisfactory. At present my earliest cases have been under observation from two to three and a half years, and subsequent tests with this specific are being carried out in many clinics and medical institutions.[3] For this reason I feel it a duty to publish the record of my experiences. In order to facilitate a right judgment of its merits, and further to assist those medical men who might wish to apply this treatment in forming an idea of the method of administration, where and how it should be applied, its value and what is not to be expected of it, I will first make a few general remarks.

The treatment of tuberculous disorders by tuberculin belongs in no sense to chemotherapy, that is to say, it in no way relies on a poisoning of the tubercle bacilli by chemical substances, as, for example, the treatment of syphilis depends on poisoning of the spirochætæ by mercury, iodide of potassium, or salvarsan. It would be of the highest importance if an analogous remedy could be found for tuberculosis. It has indeed been sought by medical men from the earliest times, but without success. While for a long time a very effective specific treatment of syphilis by various chemical substances has been possible, no chemical specific has ever been found which could stand comparison with those specifics used in the treatment of syphilis, so that up to to-day there seems no hope of any specific chemotherapy of tuberculosis, and until such a specific is found Koch's great discovery of the antigen treatment is of supreme importance.

This treatment by means of tuberculin is therefore a part of the therapy of immunity, but among the methods of this therapy it stands in a peculiar position. The treatment of acute infectious diseases depends largely on the method of so-called passive immunisation by sera of immunised animals, because this is the only way in which sufficient quantities of antitoxin substances can be quickly introduced into the affected body. On the other hand, as a prophylactic agent the more effective and more permanent active immunisation process has been exploited; its greatest achievement is Jenner's vaccination against small-pox. In acute infectious diseases, if infection has already taken place, active immunisation has only been successful in rabies, where it has time to develop on account of the long period of incubation. As a matter of fact, this also, strictly speaking, is a question of prophylaxis, for if the rabies has already declared itself or is imminent, no cure can be obtained by this method. In the treatment of tuberculosis, however, the demand is that an affection of long standing shall be successfully treated by active immunisation, the tuberculin cure. It is assumed that owing to the chronic condition of the disease and its localisation the organism has still sufficient power of biochemical function to react to the stimulus of antigen and to form antitoxin substances. The answer to the question whether this assumption has any real foundation can be only decided by clinical experiment. To a large extent this experiment has already taken place in the application of Koch's Alt-tuberculin, and in spite of early failure results have been achieved in the second tuberculin period so far positive that in certain circumstances the disease can be satisfactorily influenced. Even in cases of pulmonary tuberculosis reported in my paper[4] a quite favourable effect of Rosenbach's tuberculin cannot be denied. The cases of surgical tuberculosis to be reported are, however, still better adapted to demonstrate the influence of this tuberculin. It is not claimed even in these cases that the treatment with Rosenbach's tuberculin goes beyond the therapeutics of immunity, and in order to appreciate the results it is necessary clearly to see how far and in what cases the therapy of immunity is affected and what are its limitations.

Particular weight must be laid on the following three factors of the action of the immunised body. The first refers to the effect on the disease-producing microbes in the immunised organism. It has been proved by experiment that these microbes, if introduced into animals immunised against the disease, can be supported in deadly doses, whilst the microbes are themselves considerably affected and to a great extent destroyed, but not completely killed and extirpated. This fact has been experimentally demonstrated in animals for the bacilli of cholera, typhoid, pyocyaneus, and anthrax among others. As these bacilli cannot live in the animal as long as the immunity lasts, recurrence of the disease is not to be apprehended. This, however, is not true of all microbes, and in particular of the tubercle bacillus, which is known to have the power of existing in living tissue for years or a whole lifetime.

The second factor which we have to consider is the fact that the immunity only lasts for a definite time. This period is certainly in the case of Jenner's inoculation against small-pox a very long one, but in other diseases it is relatively short, so that if, on the one hand, the microbes remain alive in the body, and on the other hand the immunity disappears too soon, the danger at once arises of recurrence of tuberculosis. The case, however, is not so unsatisfactory as it might appear. The extraordinary vital tenacity of the tubercle bacillus is bound up with special conditions, such as, for example, are found in cases of facial lupus, while in other places complete disappearance is very frequent. I would draw attention to frequent chance post-mortem results in cases of cured pulmonary tuberculosis and to the frequent cures of articular, spinal, and peritoneal tuberculosis which follow without treatment or only by fixation, opening, congestion, &c. For this reason I believe that the cures to be reported, brought about by the activity of Rosenbach's tuberculin, are now, after the lapse of one to three years, to

[1] Deutsche Medicinische Wochenschrift, No. 33, 1910.
[2] Loc. cit.
[3] Dr. Ludwig Seyberth, Beiträge zur Klinischen Chirurgie von P. v. Bruns, vol. lxxiv., p. 744.
[4] Loc. cit.

be regarded as permanent. A permanent cure of lupus generally necessitates a longer treatment. I shall return to this subject.

The third factor—a very important one—of treatment by production of immunity is the fact that the healing power of this treatment is stronger and more certain the more recent and less developed the stage of the affection and the weaker in proportion to its long standing and development. Treatment with Rosenbach's tuberculin is contra-indicated in the last stages of phthisis, in serious affections before this state, and in cachectic cases with severe surgical tuberculosis. Nevertheless, from time to time hopeless cases have shown a transitory improvement, and very serious cases have been permanently relieved and even cured. In recent cases surprising results may be observed such as have hitherto never been known. Besides the reported methods of useing Rosenbach's tuberculin the medical man in charge of the case must note that this tuberculin, when introduced into the tract of fistulæ and open cavities, only produces superficial inflammation, and is expelled with the secretion without doing good.

To produce a cure the injection must be made into the walls of open fistulæ and cavities, after surgical treatment of the latter.

Diagnosis of tuberculosis with Rosenbach's tuberculin.—If after subcutaneous injection of 0·2 c.c. in the upper arm, for instance, there is no cutaneous reaction, this injection is to be repeated on the following day with 0·3 c.c., and perhaps even with 0·5 c.c. on the third day. Cutaneous reaction denotes a positive result. From time to time symptoms of irritation appear at the site of injection in patients unaffected with tuberculosis. These symptoms, however, are different from the typical cutaneous reaction in cases of tuberculosis.

Report of Clinical Observations, referring in all to 47 Cases.

1. *Tuberculosis of the large joints.*—Treatment: Local treatment was particularly successful. Injection into the cavities of the joints produced sure and rapid effect. When the case particularly indicated such treatment (in cases of tuberculous affection together with the articular affection), the subcutaneous treatment was adopted with the local or by itself. It was also often adopted at the beginning of the treatment of a joint in order to alleviate the first reaction in the joint. Dose: The initial dose, except in peculiarly sensitive cases, was almost always 0·2 c.c. Rosenbach's tuberculin. This was so even in the case of a child of 1 year 9 months. On repetition the doses were increased by 0·1 c.c. If the reaction was strong the doses were not increased so often. The time for the repetition of the injection depended on the reaction, the condition of the patient, and the quantity of the dose. Small doses with slight reaction were often repeated on the following day because they were too small. Other doses producing a perceptible reaction were only repeated on the third to the seventh day, and others producing intense reaction were only repeated after eight to ten days. In the hip-joint the last big doses were only repeated after two weeks. Often the patient for other reasons wished the doses repeated at long intervals. This is, of course, inexpedient. As, however, the effect of the injections persists for months treatment may be of value with long intervals. When the reactions left off or became weaker in spite of increased doses the treatment was for the time regarded as at an end.

Of 4 cases of tuberculosis of the elbow 2 were cured after a few injections with very satisfactory functional results. The permanency of the cure was demonstrated 1 year 9 months and 1 year 5 months after the beginning of the treatment. In 2 cases abscesses were formed. These were cured by resection. I must here lay stress on the fact that abscesses following on injections of Rosenbach's tuberculin must not be regarded as failure but as success, because in this way an operation is at once indicated and long and fruitless conservative treatment is frequently avoided.

Of 5 cases of tuberculosis of the knee-joint 4 were cured, and in 3 cases with very good movement, in 1 case less so. The permanence of the cure was demonstrated in 2 cases 1 year 4½ months, in 1 case 1 year six months, and in the fourth case 1 year 1 month after the beginning of the treatment. The fifth case (subchondral osteitis) was treated by resection and cured. Of 3 cases of tuberculosis of the hip-joint 2 were cured, in 1 with good movement, in the other limited. The permanence of the cure was demonstrated 1 year 9 months and 10 months 20 days after the beginning of the treatment. One case was successfully treated by resection. Of 3 cases of tuberculosis in the foot 1 was cured by the injections, and the permanence of the cure was demonstrated ten months after the beginning of the treatment. Two cases developed abscesses and were treated by resection.

Of 16 cases of articular tuberculosis 9 were cured by treatment with Rosenbach's tuberculin; in 7 cases purulent inflammation resulted and they were cured by resection.

2. *Tuberculosis of the spine.*—Spinal tuberculosis was treated by subcutaneous injections. There is no certain criterion for the cure of spinal tuberculosis. Nevertheless, three of the seven cases treated were certainly cured, the permanence of this cure being demonstrated in the first case 1 year 8 months, in the second 3 years 3 months, and in the third 3 years 7 months after the beginning of the treatment. In the latter case a bilateral purulent burrowing abscess was completely cured. It is very probable that three of the other cases were cured, and in any case improved. In one case of tuberculosis from infancy tuberculous meningitis supervened four months after the end of the treatment and the patient died.

3. *Tuberculosis of the tendon sheaths.*—Tuberculous bursæ were treated like the joints with local injections into the cavities and in the vicinity of the abscesses when formed. Three cases were cured with complete power of function, once without and twice with abscess and suppuration. The permanence of the cure was demonstrated 1 year 5 months and 1 year 7 months after the beginning of the treatment.

4. *Glandular tuberculosis.*—In 2 cases the tuberculin was introduced by subcutaneous injections. In each case the affection was diminished, once with induration and calcification, the other case with suppuration and abscess, once extirpation, once scraping. The permanence of the cure was established 1 year 1½ months and 1 year 3 months after the beginning of the treatment. Local injection first into a gland and after the extirpation of the gland into the induration remaining caused abscess, suppuration, and cure. The permanence of the cure was established 6 months and 1 year 3 months after beginning of the treatment.

5. *Recurrence of tuberculosis, fistula, and fistulous abscess in the soft parts.*—In two cases there was a recurrence of affection after operations on the bone. The first case was fistulous, the second closed. They were cured by injections into the tissue, the bone lying free at the bottom being in one case removed. The three other cases concerned fistulous subcutaneous abscesses. They were cured by injections into the walls, in 2 cases with scraping. The permanence of the cure was established 9½ months, 1 year 6½ months after the beginning of the treatment.

6. *Lupus.*—Treatment: Local injection into the cutis under the part affected. Dose increased and intervals between injections as in the treatment of the joints. During the treatment the injections should be made uniformly in all parts affected by lupus. The local reaction varies from moderate to severe, with secretion, similar to acute cellulitis, which disappears very quickly. After several operations the lupus is diminished, improved, and softened. Beside local reaction there are general symptoms of fever, indisposition, and loss of appetite. In course of time the reaction decreases in spite of increased doses. It is at this time that operation must be made. When the extent of the affection is reduced and the position allows it the remaining lupus areas should be cut out and either sutured or grafted or else scraped and cauterised. In cases of recurrence the injections and operation on the same principle are repeated and the last remnant cut out. Recently I have used another method. After the cure produced sooner or later I have made trial injections, my intention being in the case of reaction to proceed with renewed injections as a precaution against recurrence. Of 11 cases of lupus, in 10 subjects 4 were cured by a single injection treatment followed by operation. The permanence of the cure was established 7 months, 11 months, 1 year 9 months, and 2 years afterwards. Three patients after being twice treated by injection were cured by subsequent operation. In these cases the cure was established as permanent after 1½, 4, and 9 months Three serious cases were cured after being treated severa

times by injection and operation. In these cases the treatment was long (1 year 2 months to 1 year 6 months); one patient is still under treatment. When the patients last presented themselves the cure had lasted 3 months, and in two cases 3½ months.

7. *Peritoneal tuberculosis.*—A boy, aged 9½ years, had been suffering for 2½ months from peritoneal tuberculosis, and was in a very bad state. He underwent a treatment lasting two months with 34 injections (23·2 c.c. Rosenbach's tuberculin). The permanence of the cure was established 11 months after the beginning of the treatment. Increase of weight in that time 6·5 kilogrammes.

8. *Intestinal tuberculosis.*—A boy, aged 9 years, suffering from intestinal tuberculosis was treated with 44 injections (24·1 c.c. Rosenbach's tuberculin). 1 year 10 months after the beginning of the treatment complete and permanent recovery was proved. Increase of weight in this time 7·75 kilogrammes.

Göttingen.

Clinical Notes:

MEDICAL, SURGICAL, OBSTETRICAL, AND THERAPEUTICAL.

NOTE ON A CASE OF TREPHINING IN ACUTE GLAUCOMA.

BY A. A. BRADBURNE, F.R.C.S. EDIN.,

HONORARY OPHTHALMIC SURGEON TO THE HYDROPATHIC HOSPITAL, SOUTHPORT; OPHTHALMIC SURGEON TO ORMSKIRK HOSPITAL AND DISPENSARY.

IN the issue of THE LANCET for Oct. 21st last (p. 1136) Mr. Sydney Stephenson describes a successful case of trephining in acute glaucoma. In the treatment of chronic glaucoma this operation is becoming more into favour and its value better known. In acute cases it is still on its trial, hence the necessity for recording cases in which its use has proved of benefit.

The patient in the present case was a single woman, aged 51 years. I saw her first in consultation in May, 1910, when she was suffering from a fairly severe attack of congestive glaucoma of the right eye. Under appropriate treatment the attack subsided, and though warned to keep herself under observation this she failed to do. On the evening of Sept. 27th I was asked by her medical attendant to see her again, and I found the patient suffering from a more intense form of glaucoma. The pain radiated mostly down the side of the neck and right shoulder-joint. The ocular symptoms were unmistakeable—semi-dilated, inactive pupil, no anterior chamber, hazy media, dilated conjunctival vessels, and plus tension with tenderness on digital pressure. The patient was immediately removed to a nursing home. Two leeches were applied to the temple, two powders of 2 grains of calomel were administered at two-hourly intervals, and a sleeping powder of trional and compound ipecacuanha was ordered. Locally dionin and eserine were instilled every hour. These measures gave marked relief, the action of the calomel being particularly copious. The bowel contents were evacuating for the ensuing 24 hours although the patient had denied any possibility of their being confined. So much for the reliability of the patient's statements. As the patient was a chronic bronchitic with marked atheroma administration of a general anæsthetic was to be avoided if possible. It was therefore decided to attempt the operation under the local use of cocaine, which seemed more feasible now that the ocular tension was a trifle lowered. Further, as the iris was lying close against the posterior surface of the cornea, the ordinary operation of iridectomy would have presented great difficulties which would not have been lessened by the hyperæsthesia of the eye.

Cocaine and adrenalin having been instilled, a flap of conunctiva was raised and the trephine was applied over the neighbourhood of the limbus. Until the instrument came down on the ciliary nerves no pain was complained of, but when this stage was reached solid crystals of cocaine had from time to time to be placed in the cut of the trephine. As soon as the disc of sclera was removed the bottom of the wound was found to be blocked by the iris and a spatula was very gently introduced, but not without causing the patient to experience some pain, and its base was pushed back into the anterior chamber which allowed the aqueous to be slowly evacuated. This step in the procedure of allowing the aqueous to slowly leak away is an important detail when the intraocular pressure is accompanied by high arterial pressure.

Before the operation the blood pressure had been taken, and was ascertained to be 149 mm. Hg. The conjunctival flap was replaced and the wound dressed. The patient was given another trional and compound ipecacuanha powder, and she obtained a good night's rest. The tension of the eye next day was normal, and for the next three days it progressed satisfactorily. On the fourth day a slight ciliary injection came on, which was treated successfully by a weak solution of atropine for three days. The subsequent progress of the case was eminently satisfactory in every way, and when the patient was seen three weeks after the operation the vision was the same as it had been when first examined. The trephine hole was patent and acting, so as to cause the tension to be quite normal, and a total absence of pain had marked the progress of the case from the date of the operation.

The following are some of the points of interest in this case. 1. The untrustworthiness of a patient's statements as to the condition of the bowels. In this case their evacuation after calomel lasted over 24 hours, and on this a large responsibility rested for the onset of the eye condition. 2. The risks which a patient runs of being lulled into a sense of false security by the sole use of drug treatment. 3. The valuable means which the operation puts into our hands for overcoming the very great technical difficulties associated with operative interference in these acute attacks. 4. The importance of ascertaining the blood pressure immediately before operating, as on its finding depends the rate at which it is prudent to evacuate the aqueous.

Manchester.

A CASE OF HERPES FOLLOWING SPINA BIFIDA.

BY C. STEWART WINK, M.R.C.S. ENG., L.R.C.P. LOND.

THE patient was a full-term female child, born on July 4th, 1911, and labour had been normal. On examination a raw area of the size of a five-shilling piece was found in the lumbo-sacral region. This was covered by a glistening membrane on the deep surface of which the structures of the spinal cord could be seen On the 12th (eight days after birth) a crop of herpes appeared on the right side immediately below the last rib and extending from the spine posteriorly to the midline anteriorly and limited to one nerve area. On the 14th another crop appeared in the corresponding position on the left side. The temperature remained normal throughout, but the child became more and more cyanosed and died on the 25th.

I can find no record of herpes associated so closely with spina bifida.

Halstead.

MIDDLESEX HOSPITAL.—In the annual report of this institution, which was adopted at a meeting of the Board of Governors held on Nov. 30th, it was stated that by an extensive scheme of reorganisation the capacity of the general wards of the hospital had been increased from 318 to 330 beds. The Prince Francis of Teck Memorial Fund amounted to £28,240, including recent contributions of £2000 from the directors of the Savoy Hotel, being the proceeds of a fancy-dress ball, and £1000 from Sir Charles Wyndham. The Barnato-Joel Memorial was now nearing completion, and the wards would be opened in the New Year. The capacity of the Cancer Charity would then be 90 beds, which would be reserved for incurable patients. Visits had been paid to the new laboratories by three official representatives of bodies about to erect similar laboratories; one of these was from London, one from New York, and one from Rome. The report also stated that the male cancer patients have been transferred from the Greenhow ward on the top floor of the north-west wing to the Cancer Charity, and that the Greenhow ward had been altered and equipped for the accommodation of female medical cases. This ward will in future be called "Queen Alexandra" ward.

Medical Societies.

HARVEIAN SOCIETY OF LONDON.

Some Early Signs and Symptoms in Nervous Disease.—Syphilitic Affections of Bones in Childhood.

A MEETING of this society was held on Nov. 23rd, Mr. J. ERNEST LANE, the President, being in the chair.

Dr. JAMES TAYLOR read a paper on Some Early Signs and Symptoms in Nervous Disease, which is printed on p. 1614 of this issue of THE LANCET.—The paper was discussed by the PRESIDENT, Dr. D. W. CARMALT-JONES, Mr. CAMPBELL WILLIAMS, and Dr. G. A. SUTHERLAND.

Mr. DUNCAN C. L. FITZWILLIAMS read a paper on Syphilitic Affections of Bones met with in Childhood, illustrated with lantern slides of the various conditions. He first laid stress on the fact that all syphilis was really acquired either before, during, or after birth, and that the only difference between young and old syphilitics was the difference in the want of resistance in the young, so that all the manifestations might be found jumbled up together. The different bone lesions detailed were epiphysitis (perichondritis), dactylitis, periostitis, local diffuse myelitis, and osteomyelitis. The appearances and differential diagnosis of each were entered into with the appropriate treatment. Mr. Fitzwilliams had not found many indications for "606" in children, as they were very tolerant of mercury and reacted with marvellous rapidity in the great majority of cases; he mentioned certain cases, however, in which "606" was beneficial.—The paper was discussed by the PRESIDENT, Mr. WILLIAMS, and Dr. SUTHERLAND.

EDINBURGH MEDICO-CHIRURGICAL SOCIETY.

The Position of the Stomach as a Guide to Pyloric or Duodenal Difficulty.—Vaccine-therapy.

A MEETING of this society was held on Nov. 29th, Mr. J. M. COTTERILL, the President, being in the chair.

Dr. WILLIAM RUSSELL contributed a paper, illustrated with numerous lantern slides, on the Position of the Stomach as a Guide to Pyloric or Duodenal Difficulty. He said that eight years ago he had submitted a communication to the society on the subject of hyperchlorhydria in which he had dealt with the symptoms, probable nature, and treatment of the condition. Last year he had published a paper which again dealt with the subject, and he had only time now to state that hyperchlorhydria had generally come to be accepted as a definite clinical entity. He added that it was also a generally recognised fact that gastric hyperacidity was often associated with gastric ulcer; that, in fact, gastric ulcer was probably nearly always due to such hyperacidity. It seemed to him to be equally true that pyloric and duodenal ulcer were usually associated with this over-secretion—that, in fact, it was an important factor in their etiology. It was unnecessary that he should enlarge upon the question of duodenal ulcer, but stated that in his experience the perforation of acute duodenal ulcer was as rare as was the perforation of acute gastric ulcer. There was abundant operative evidence that such ulcers had healed; there was also much clinical evidence that, in favourable circumstances, they healed at least as readily as did gastric ulcers. It was important to recognise that ulcer in the stomach and duodenum was not necessarily always of equal severity; that in some cases there was certainly a considerable depth of tissue destruction, whilst in others the loss was probably much less deep, and that in the latter the process of healing must be more easily and more quickly effected. In all acute ulceration in these regions, the ideal before the clinician ought to be to obtain rapid healing. How this could best be obtained needed not to be discussed, but the axiom stated must be kept prominently in view. The reason was that where rapid healing was effected no appreciably bad results remained; whilst if healing was slow there was not only prolonged suffering, but there followed so much thickening and induration that the stomach outlet or the narrow channel beyond it became greatly diminished in calibre, with the result that the gastric contents were unduly retained. Dr. Russell had seen one case where the difficulty in the duodenum followed upon operation for perforation of a duodenal ulcer. A puckered scar either at the pylorus or in the duodenum led to difficulty in the emptying of the stomach, and this difficulty in course of time led to the changes in the position of the stomach to which he sought specially to direct attention. It seemed to him to be essential to the correct understanding of such cases as he was dealing with to keep distinctly in view the question of ulcer from the question of mechanical obstacle to the outgoing of the gastric contents. No doubt they often overlapped, but it was by realising these two distinct factors that they could hope to attain to completeness of differential diagnosis. A few years ago he had submitted to the society a paper on Congenital Pyloric Stenosis in the Adult in which it was shown that this congenital narrowing led to difficulty in the emptying of the stomach; since then he had seen one example of a pylorus situated so high up in the abdomen that it suggested the conclusion that the stomach must have always worked at a great disadvantage, and that it was no matter for surprise that the symptoms of such difficulty should have become prominent under the strain of work in early adult life. The difficulty in the emptying of the stomach was, of course, the cause of the retention of gastric contents; and it was the retention that was the cause of the symptoms. The most evident result of a difficulty to the outgoing of gastric contents was, of course, "dilatation" of the viscus. So much was universally known, but the term was much too general and vague for the purposes of differential diagnosis in this region. There was a dilatation of the fundus, there was ptosis of the body of the viscus, there was ptosis of its inferior border, and there was overlying of the pylorus by the distended anterior wall of the stomach being carried far to the right of its normal position. In all these, with the exception of the first and last, the position of the axis of the viscus in relation to its outlet was so altered that under the most favourable conditions it could with difficulty be completely emptied. Dr. Russell could not attempt to deal with more than one of these—namely, the position of what for clinical purposes he called the right border of the stomach. The methods by which the position of the stomach was determined were: visible peristalsis, percussion, succussion, and auscultatory succussion. The position of abnormal stomachs could be determined without X ray examination, although such examination was interesting and confirmatory in certain instances.

Dr. D. CHALMERS WATSON said that he doubted much if hyperchlorhydria was really a clinical entity. A single examination of the gastric contents might show an excess of acid, while at another time there might be no excess. He considered that combined percussion and auscultation was in many cases valueless, or at least of comparatively little value. There were such enormous variations in the size and position of the stomach under normal conditions that one ought to be exceedingly chary in drawing conclusions.

Dr. J. S. FOWLER asked if Dr. Russell had observed any case of dilatation of the stomach in children between the ages of 3 and 10 years, and if these were due to congenital obstruction of the pylorus. He thought the symptoms were characteristic. In one case he had found a healed tuberculous ulcer at the mouth of the duodenum. In another child, aged 6 years, there was such a degree of dilatation of the stomach that it extended into the pelvis, and the condition had persisted during three years.

Dr. G. LOVELL GULLAND said that he could reproduce an exact series of such cases as those of Dr. Russell, with, however, no question as to the presence of pyloric or duodenal stenosis in them. Hyperchlorhydria was a clinical entity, though perhaps not a disease. He agreed as to the value of percussion and auscultation in estimating the size of the stomach, and said that radiologists were not so sanguine as to the results of bismuth meals in showing the size of the stomach as was Dr. Chalmers Watson.

Professor F. M. CAIRD said that the contour of the stomach as determined clinically was often not the same as that found on opening the abdomen, but it had to be remembered that in the latter condition the organ was empty and contracted. The position of the pylorus was, however, very important, and very frequently it was found in the middle line. He thought that the position of the stomach should be determined when the patient was sitting or standing

up as well as when he was lying down. Patients were often the first to discover a neoplasm in this locality by bending forwards.

Dr. W. T. RITCHIE asked if any benefit had resulted from an examination of the stomach after inflation. Personally he preferred the simple, and to him more accurate, method of determining the size of the stomach by percussion. He also put in a word in favour of the bismuth meal in determining the size and position of the stomach. He could not rely on the results of auscultation and percussion when compared with the examination by the fluorescent screen.

Mr. H. J. STILES said that, judging from what was seen in congenital stenosis in children, he invariably found the antrum pylori passing well to the right and covering over the pylorus. He asked if as much had been described by the radiographer, and consequently he laid as much stress on the method of estimation as performed by Dr. Russell. When a stomach was filled with a bismuth meal and the patient stood up the observer did not get the true position of that viscus. It mattered not whether the patient had an obstruction at the pylorus or not, but the real test was whether he could empty the stomach. The condition might be merely atony of the stomach with dilatation, yet it required operation quite as much as if stenosis were present. In all cases, however, he thought it was necessary to close the pyloric orifice.

Dr. RUSSELL, in reply, said that a physical difficulty in the stomach emptying itself had to be overcome by physical means. None of the speakers had seemed to realise that he was describing a new method of mapping out the stomach. Percussion as one means was most valuable, for by its use one could always determine the fundus. The method he had worked out was succussion; it was only obtained if there were air and semi-fluid contents in the stomach. By means of the succussion wave one could absolutely determine the lower and right border as well as the fundus of the stomach. He had wished to direct attention to the importance of the displacement of the stomach to the right of the middle line—when the condition could not be corrected—and that this displacement was an important guide as to diagnosis and to treatment. If this displacement could not be rectified then the patient continued to suffer discomfort, and only surgical interference could benefit him.

Dr. JAMES RITCHIE introduced a discussion on Vaccine Therapy. At the outset it was pointed out that bacterial intoxications must be differentiated from the true infections, that the general bodily disturbances characteristic of the latter were non-specific, and that nothing was known of the underlying processes. In the true infections, while the escape of bacilli into the body was common, the bacterial multiplication causing the disease was essentially focal in character. The recovery from infections probably depended on some mechanism in the body being stimulated by the passage into the circulation of living bacteria or of autolysed products. The activity of this mechanism was reflected in the appearances of anti-bacterial substances in the serum which probably played an executive part in bringing to an end the multiplication of bacteria in a disease focus. The most important of these substances were bactericidal bodies and opsonins, and from the standpoint of the most common human infections the latter probably deserved most attention. The composition and standardisation of ordinary and anti-tubercular vaccines were described by the speaker. It was pointed out that vaccines contained protoplasmic material analogous to that passing into the body from a focus of infection. The injection of such a vaccine into an animal caused the development of resistance to subsequent infection with living organisms, and this resistance depended on the activity of the mechanism already referred to. Thus, if a vaccine be used prophylactically, the body fluids as a whole were rendered relatively inimical to bacterial life, so that if living bacteria subsequently gained admission they found themselves in a hostile environment. The therapeutic use of a vaccine rested essentially on the fact that bacterial multiplication was focal. Thus the injection of a vaccine might stimulate the body so that the local focus was sufficiently flooded with antibodies to kill off the invading bacteria. The sequence of events after a vaccine was introduced was discussed. Where the development of antibodies could be followed with the greatest accuracy they were found not to appear until after from 36-48 hours. During this preparatory period, which corresponded to the "negative" phase, the body might be more than usually susceptible to invasion. The object of a successful vaccination was the establishment of free antibody formation usually referred to as the "positive" phase. The essential difficulty underlying vaccination procedures was that the resources of the antagonistic mechanism of the body were, where bacterial protoplasm was concerned, exceedingly limited. The condition contrasted with what was seen in immunisation against an extracellular toxin, such as that of the diphtheria bacillus, where in an animal an immunity against many thousand times the minimum lethal dose would be easily attained. The question arose of how the effects of vaccination procedures were to be judged of so that the treatment might be followed by the maximum of good and by the avoidance of harm. It was recognised that the estimation of the opsonic index constituted the only serological method at present available for following the course of a difficult immunisation, but the laborious nature of the procedure, the impossibility of an opsonist maintaining his training without daily practice, and the question of the validity of the interpretation of opsonic results, contribute to make its use at present almost impracticable. It lies with the clinician to define with the most laborious care the signs and symptoms of the successful and unsuccessful reaction in the case of each infection. The results obtained by vaccine-therapy were then discussed. On the prophylactic side the success of antityphoid inoculation was pointed out, and it was insisted that all persons likely to be exposed to typhoid infection abroad should undergo the treatment. The difficulties of estimating the results of the therapeutic uses of vaccines were discussed. At present judgment must be based on statistical inquiries in a series of cases treated by the method as compared with a series untreated. In certain diseases some data of this kind were at present in existence. In cases where these were not available the unsatisfactory method of opinion based on limited experience was alone available. The only circumstance in which weight might be really attached to such a judgment was where a sudden improvement took place as the result of vaccination either in a chronic disease after previous treatment had failed or in an acute illness of fatal import. Certain of the results were then discussed in detail. In chronic suppurative conditions there was universal agreement that good results had been obtained, the only qualification being that the success in the treatment of acne had not been of such a striking character. Good results had also been obtained in gonorrhœal arthritis and in gonorrhœal vulvo-vaginitis in children. In the latter the success of the vaccine treatment as compared with ordinary methods was noteworthy. In tuberculosis statistics were given supporting the prevalent view that tuberculin inoculations had definitely improved the results obtained by sanatorium treatment. With regard to tuberculous glands, where caseation had not occurred, vaccine-therapy was likely to have good results, and success also attended the treatment of cases recurring after operation, of persistent sinuses, and of mixed infections. Where, however, caseation or abscess formation had occurred, these must be treated on ordinary surgical lines. In tuberculosis of bones and joints, a plea was put forward for the more extended application of tuberculin in early synovial tubercle during periods when surgical treatment by rest was being carried out, it being pointed out that in this form of tuberculosis caseation was relatively a late phenomenon. Attention was directed to the success which had attended the vaccine treatment of old-standing, semi-quiescent tuberculosis in whatever site it occurred, and it was pointed out that many apparently desperate cases of this kind had yielded in surprising fashion. In non-tubercular infections of the urinary tract good results had been obtained, especially in subacute coli infections and even in many chronic cases. Here, however, while the symptoms might disappear bacilluria frequently persisted. Passing to acute diseases, it was shown that striking success had attended vaccine-therapy in pneumonia, erysipelas, and typhoid fever. In summing up, Dr. Ritchie stated that the application of vaccine-therapy was limited—first, by the limitation of the capacity for antibacterial response in the human body; secondly, by the existence of individual peculiarities of disease manifestations; and thirdly, by the fact that they were still in the dark as to the

means to be adopted for bringing out the highest degree of antibacterial response. The essential condition favourable to the action of a vaccine was that the body fluids containing antibacterial substances must have free access to the focus of infection. The impossibility of fulfilling this condition explained the difficulties arising in tuberculosis where the bacilli were interned in caseous deposits. It also explained the difficulty of attacking bacilli which were multiplying on free surfaces of the body, as happened, for instance, in typhoid carriers. In certain cases the access of antibodies to the bacteria could be favoured by associated procedures, such as the relief of tension, &c. In this new therapeutic procedure practice was in advance of scientific knowledge, but the success attending the treatment of such conditions as furunculosis suggested that with further knowledge regarding the pathology of infection a similar success might attend the treatment of other diseases. The present situation was not final, and a definite case had been made out for further work. An essential condition was that every vaccine procedure must be looked upon as of the nature of a scientific experiment, often of a tedious character. It was essential that anyone applying the method should obtain a mastery of the underlying principles. One of the most important of these was that no hard-and-fast rules relating to dosage or interspacing of doses could be laid down. Vaccine-therapy more than any therapeutic method recently introduced had suffered from the indiscriminate use of its weapons by those who had taken no trouble to acquire a knowledge of their characters. While further specialisation in medicine was to be regretted, it might be laid down that in all serious cases where vaccination was applied special knowledge was necessary, if the best interests of the patient were consulted. There had been a tendency in certain quarters to apply vaccine treatment to disease whether or not there was any scientific ground for supposing that the condition was of bacterial origin. The empiricism of such procedures was to be utterly deprecated, and would discredit not so much vaccine-therapy as the whole practice of medicine.—Owing to the lateness of the hour the discussion was delayed until the next meeting.

ROYAL ACADEMY OF MEDICINE IN IRELAND.

SECTION OF OBSTETRICS.

Pregnant Myomatous Uterus.—Cæsarean Section.

A MEETING of this section was held on Nov. 17th, Dr. A. J. HORNE, the President, being in the chair.

Dr. GIBBON FITZGIBBON showed a specimen of Pregnant Myomatous Uterus. A woman, aged 38, married about six months, was sent to him complaining of severe abdominal and pelvic pains. From the history it was obvious that she was pregnant. She had not menstruated for almost three months. A tumour was felt extending half-way to the umbilicus, and another tumour completely filled the hollow of the sacrum. He opened the abdomen with the object of doing a myomectomy, but the tumour on the posterior wall of the uterus had so extensive a base that he thought the risk of myomectomy would be too great. Practically the whole uterus was taken out. There was a fibroid in the anterior part of the fundus, also a couple of pedunculated fibroids at each cornu of the uterus.—Dr. E. H. TWEEDY asked what Dr. FitzGibbon considered to be the cause of the pain, as myoma of the pregnant uterus did not usually give rise to pain. In his opinion it would have been possible to remove all the myoma without injury to the uterus. A point that occurred to him was, should the woman not have been allowed to go to full term?—Mr. J. S. SHEILL asked what actuated Dr. FitzGibbon in deciding to do hysterectomy at once.—Dr. H. JELLETT said that the point that arose in his mind was, not so much why the case was operated on as whether it might not have been better to take out three of the tumours and leave the patient the uterus.—Dr. FITZGIBBON, in reply, said that he thought the cause of the pain was peritonitis. The large fibroid in Douglas's pouch was slightly adherent, which might possibly have given rise to the pain. He did not see the possibility of the patient going to full time; but perhaps it might as well have been permitted with the chance of ending up with Cæsarean section. The fibroid of the posterior wall of the uterus was low down, and he did not see how it could have been enucleated safely. As the patient had particularly impressed on him that she did not want to take any risks for the sake of having a family he only felt justified in adopting the course he did.

After the PRESIDENT had read his address,

Dr. C. YELVERTON PEARSON contributed a paper on Four Successful Cases of Cæsarean Section, with Observations.—Sir WILLIAM SMYLY remarked that it was curious that they had not a greater number of Cæsarean sections in Ireland. In Glasgow they had them every fortnight or even oftener. This he attributed to the fact that Irish women nursed their children, whereas the Scottish did not.—Dr. FITZGIBBON said he thought that the first case reported by Dr. Pearson answered the question which he had asked when showing his specimen that evening. It was obvious in his case that labour could not take place past the fibroid, but perhaps it might have been left so and a section done later, as was done in Dr. Pearson's case. The point in favour of operating before labour started he agreed with. He thought the separation from the uterine wall was advantageous, as the bleeding from the mother was not increased, whereas the bleeding from the child would be diminished.—Mr. SHEILL said, with reference to the douching of the uterus in the case of uterine inertia, he thought it would be impossible to use the douche sufficiently hot to be of any value.—Dr. B. A. H. SOLOMONS said that at extra-peritoneal Cæsarean section he was struck with the advantage of only opening up the lower uterine segment, as the abdominal cavity seemed to be shut off from any septic infection.—Dr. TWEEDY said that those who had not had the chance of seeing the extra-peritoneal Cæsarean section condemned it, whilst those who had seen it became enthusiastic about it. It was an operation that could be done at an advanced stage of labour, after the membranes had ruptured, and when a case was so far advanced that classical Cæsarean section was considered unsuitable.—Dr. SMITH said that Dr. Pearson's method of performing the operation before labour came on appeared to be the ideal one. He fully agreed with Dr. Pearson in not sterilising the patients on whom he did Cæsarean section.—Dr. JELLETT said that it appeared to be fairly well established that, under favourable conditions, Cæsarean section undoubtedly stood, but that it should always, if possible, be performed before labour came on. He found in operating on cases where the patient was not in labour, while the uterus was in an absolutely atonic condition when out, as soon as it was replaced in the abdomen contraction immediately started.—Dr. GIBSON said that he had done the operation eight times, and all the cases had done well. It was, he thought, of importance that, before commencing, the patient should have an intramuscular injection of ergot. He did not see why extra-peritoneal Cæsarean section was so called, because the peritoneum was opened although sutured. Personally he never did the operation, and he did not see the advantage of it.—The PRESIDENT said that in the first case reported it was found that a large posterior myoma blocked delivery. He remembered a similar case where the patient got into labour, and as it advanced the tumour was pulled up and the woman delivered herself. It was a case in which Cæsarean section might have been done. In a case like the second one mentioned—contracted pelvis—it was always found that before labour set in the membrane was ruptured, consequently in such cases the moment the membrane ruptured a Cæsarean section ought to be done. It appeared to him the simplest operation that one could do.—Dr. WILLIAM PEARSON, who read the paper in the absence of the author, replied from the surgical point of view. In his opinion, hæmorrhage from the placenta was as likely to occur in one form of operation as in the other, and if an abdominal tumour were present it would decide which should be undertaken. From the point of view of the surgeon he would be inclined to say that the safer and better operation was the old one of opening the abdominal cavity, bringing the uterus outside.

SCOTTISH OTOLOGICAL AND LARYNGOLOGICAL SOCIETY.—A meeting of this society was held at the Royal Infirmary, Edinburgh, on Nov. 25th, Dr. J. Malcolm Farquharson being in the chair.—Dr. Farquharson showed a man, aged 72, suffering from Epithelioma of the Laryngo-pharynx, with a large growth in the right pyriform fossa, the chief interest of which lay in the

laryngeal appearance. Though there were no laryngeal symptoms there were marked redness and swelling of the left ventricular band entirely concealing the left cord, which had partly disappeared on sedative treatment. He thought the laryngeal condition due to torsion from the growth.—Dr. Farquharson also reported a case of Primary Nasal Syphilis in the floor of the vestibule of the right nostril. Fourteen days after an injection of "606" Wassermann's reaction, which had been positive, was negative, and at the end of six weeks all œdema and induration had disappeared.—Dr. G. T. Guild showed a woman on whom, eight years ago, he had performed Thyrotomy for Severe Dyspnœa in a case of Lupus of the Larynx. The result was most satisfactory.—Mr. W. G. Porter showed: 1. A case of Suspected Inflammation of the Mastoid Process illustrating the diagnostic value of a skiagram. The discharge from the ear had ceased, but œdema and tenderness over the mastoid remained; the temperature was 100° F., and leucocyte count 16,800. A skiagram of the mastoid was taken, but before it was developed the mastoid cells were opened and were found healthy. On development the skiagram showed a condition in accord with that found on operation. The general opinion in the discussion was that, while skiagraphy was of service, chief reliance should be placed on the clinical phenomena. 2. A woman with Varix involving the Soft Palate, the Left Tonsil, and the Left Pharyngeal Wall. The condition had been present for 16 years at least and caused a choking sensation, especially on stooping. The opinion of the members was asked as to treatment. Dr. A. Brown Kelly, Dr. J. W. Downie, and Dr. Farquharson referred to similar cases. Dr. Farquharson recommended electrolysis and carbon-dioxide snow, which was supported by Dr. W. Milligan. Surgical interference was deemed inadvisable. 3. A case of Chronic Pneumococcal Ulceration of the Pharynx, Tonsils, and Tongue in a boy who, when first seen in January, had small superficial ulcers and small opalescent patches not unlike mucous patches on both tonsils, even in the pharyngeal wall. The cervical glands were enlarged. Active antisyphilitic treatment failed, the ulceration continuing to spread. A swab from the throat on two separate occasions, with a month's interval, gave a pure culture of pneumococci. Twelve doses of pneumococcal vaccine were injected, and local antiseptic treatment was continued, but the disease remained uninfluenced. In September he was sent to the country. The ulceration rapidly healed and there was now no sign of recurrence.—Dr. A. Logan Turner showed: 1. A woman, aged 31, who had had a discharge from her right ear for three years, and on whom he had operated for chronic middle-ear and labyrinthine suppuration complicated by sigmoid sinus thrombosis and septic lepto-meningitis. On admission the tests pointed to involvement of the labyrinth as well as of the middle ear. Lumbar puncture gave exit to cerebro-spinal fluid under very considerable pressure, but it was not turbid. The radical mastoid operation was followed immediately by double vestibulotomy, and the internal auditory meatus was opened, permitting the escape of cerebro-spinal fluid. Three days later the internal jugular was tied and the lateral sinus opened. The fluid from the sinus gave a diplococcus resembling pneumococcus and bacillus proteus; the cerebro-spinal fluid streptococcus pyogenes and staphylococcus albus; and that from the mastoid bacillus proteus and streptococcus pyogenes. Vaccines of the streptococcus and of the bacillus proteus were given on alternate evenings—ten doses in all. The patient improved, but again relapsed, the symptoms of meningitis reappearing. Lumbar puncture was performed on several occasions, and as the streptococcus had disappeared from the spinal fluid a staphylococcus vaccine was given daily. After six weeks the patient made a complete recovery. Dr. Adam, Dr. Milligan, Dr. J. Stoddart Barr, and Dr. W. S. Syme discussed the case. 2. A man, aged 53, one year and eight months after Thyrotomy for Epithelioma of the Right Vocal Cord and the Anterior Third of the Left. The man could only speak in a whisper, but there was no sign of recurrence. 3. A boy, aged 7, from whose right bronchus Dr. Turner had removed a toy metal pipe by direct upper bronchoscopy under chloroform.—Dr. Milligan showed a large pebble which he had removed from the bronchus of a man by a similar method.—Dr. Logan Turner and Dr. J. S. Fraser showed (1) a patient with Ulceration of the Palate with pus and granulations in the right nasal cavity; and (2) a patient with a large Swelling of the Left Ary-epiglottidean Fold, with signs of congenital syphilis. In both cases von Pirquet's reaction was positive and Wassermann's was negative, but the condition in both was thought to be specific.—Dr. Fraser gave a lantern demonstration of Injury to the Ear in two cases of Fracture of the Base of the Skull.—Dr. Fraser and Dr. J. K. Milne Dickie contributed an analysis of 123 consecutive cases in which operations were performed for the relief of the mastoid, labyrinthine, and intracranial complications of suppurative middle-ear disease. The analysis of these 123 cases was very full and interesting and gave rise to a prolonged discussion. Dr. Fraser and Dr. Dickie were specially thanked.—Dr. J. Kerr Love showed: (1) a Brain and stereograms illustrating a case of Temporo-sphenoidal Abscess; and (2) stereograms of a case of Malignant Disease of the Auricle, Parotid Gland, and Pterygoid Fossa.—Dr. Logan Turner and Mr. Porter gave an interesting demonstration of skiagrams of cases of Naso-antral (Choanal) Polypus, cases of Dental Cyst, and a case of Mucocele of the Frontal Sinus. They also showed Stereoscopic Views of the Skull.

LEEDS AND WEST RIDING MEDICO-CHIRURGICAL SOCIETY.—A meeting of this society was held on Nov. 24th, Mr. H. Littlewood, the President, being in the chair.—Dr. C. Oldfield read a paper on the Treatment of Uterine Displacements. He maintained that not one of the uterine displacements of itself produced symptoms, and therefore that treatment should not be directed to rectifying the position of the uterus, but to curing the accompanying condition which produced the symptoms. The reasons given for holding the opinion that *backward* displacement of itself causes no symptoms were: 1. To find backward displacements without symptoms was a common clinical experience. 2. When symptoms did accompany this position of the uterus some pathological lesion could usually be found on careful physical examination to explain the symptoms. 3. In some cases where no pathological lesion could be found, the patient could be cured without disturbing the position of the uterus, e.g., dysmenorrhœa and sterility. In other cases where no pathological lesion was made out, exploration of the pelvis by the abdomen revealed a cause, such as general adhesions of the pelvic viscera with chronic inflammatory disease of the appendages. Sometimes no lesion of any kind was found even on exploration, but most of these cases, if not all, belonged to the class generally called "neurotic." The inferences drawn from these observations were: 1. That the use of the pessary in the treatment of conditions where the uterus was found lying in a backward position must be very limited. 2. That a suspension or other operation for *uncomplicated* backward displacement was unnecessary and may be harmful. The results of operations for "prolapse" were given. During the five years from March 1st, 1906, to March 1st, 1911, there were 98 operations, with no deaths; 45 came for examination recently, and of these 3 showed recurrence, 2 of small cystocele without symptoms, and 1 (an old woman, 66 years of age) with complete recurrence. Twenty-three others, in reply to letters of inquiry, complained of no recurrence.—Dr. Leonard A. Rowden showed five cases of Rodent Ulcer treated in the following ways: (1) Entirely by radium; (2) entirely by "secondary" radiations; (3) chiefly by "secondary" radiations and partly by radium; (4) and (5) by "primary" radiations and radium combined. Complete recovery occurred in all cases except in (3), in which only a very small area still remained unhealed.—Mr. H. Secker Walker showed two cases of Chronic Glaucoma treated by Herbert's operation, and explained the details of the operation, pointing out that there was no subsequent disfigurement of the eye, that it was useful in both acute and chronic cases and was probably the most trustworthy of any of the glaucoma operations at present before the profession.—Mr. J. F. Dobson showed a specimen of Tuberculosis of the Kidney.—The President showed a female patient, aged 47 years, whom he had successfully operated on for gangrenous pancreatitis. Her symptoms were very severe pain in the right hypochondrium with vomiting. At the operation multiple fat-necroses were seen, and also a sloughing condition of the head of the pancreas. Some small sloughs were removed and a drainage-tube was inserted into the sloughing area. 130 gall-stones were removed from the gall-bladder, which was drained. The urine gave the pancreatic reaction.—Dr. W. H. Maxwell Telling and Dr. D. Wilson showed a patient, aged 27, with Spondylitis Deformans. The onset

had been an insidious one five years previously, with increasing stiffness and pain in the spine. There had also been a certain amount of stiffness in various joints. At the present moment the upper part of the spine was quite rigid and slightly flexed at the cervico-dorsal junction. There were well-marked chronic fibro-arthritic changes in the right knee.—Dr. Oldfield showed a case of Pubo-sacral Hernia, in which the uterus and bladder were in normal position. The patient had had complete "procidentia" for 20 years or more. A year previously carcinoma of the cervix developed, and the broad ligaments became infiltrated with growth, from the contraction of which the uterus and bladder had become drawn up into their normal position.—Mr. H. Collinson showed a uterus containing large Degenerating Fibromyomata. The patient was four months pregnant, and the uterine walls were of extreme thinness. Abdominal hysterectomy was performed, with recovery.—Other cases and specimens were shown by Dr. A. G. Barrs, Mr. W. Gough, Mr. H. J. Roper, and Dr. T. Wardrop Griffith.

GLASGOW MEDICO-CHIRURGICAL SOCIETY.—A meeting of this society was held on Nov. 24th, Dr. A. Freeland Fergus, the President, being in the chair.—Dr. J. Goodwin Tomkinson showed a case of Nævus Verrucosus and several cases of Lupus Erythematosus under treatment with solid carbon dioxide; a case of Multiple Keloid and cases of Extensive Rodent Ulcer under treatment with X rays; cases of Lupus Vulgaris under the combined treatment of X rays and cauterisation; and several children whose scalps had undergone complete X ray epilation for Tinea Tonsurans and now exhibited complete re-growth of healthy hair. He considered X ray epilation a perfectly safe method in the hands of a careful operator, and the only dependable one in the treatment of tinea tonsurans.—Dr. John Brownlee made a few remarks on Spinal Affections following Enteric Fever, and recorded an interesting case. The patient had developed, when aged 15, a lateral curve of the spine, but had been practically well and able for hard machine work until, at the age of 32, he contracted enteric fever. This attack was very severe, the temperature not reaching normal till the thirty-fifth day. A month later he developed thrombosis of the left leg. During convalescence from this symptoms suggesting syringomyelia developed; the sensation of pain was practically absent from the middle of the thighs downwards; heat and cold could not be distinguished; plantar reflexes were much exaggerated, and ankle clonus and Babinski's sign were present. These symptoms became worse, until the disturbance of heat sensation and loss of pain sense were present up to the lower costal margin; the sensation of touch, however, was nowhere lost. From this point he made a very slow but uninterrupted recovery, and at the end of 21 months was able for a hard day's work, and had heat and pain sensation present all over the body, though these sensations were delayed over the dorsa of the feet and the lower third of the legs.—Dr. Archibald Young described three unusual cases of Dislocation of the Metatarsus at the Lisfranc Joint. In two cases the whole metatarsus was displaced outwards, and in one of these there was also moderate dorsal displacement. Both showed some comminution of bone at the joint between the cuneiforms and base of second metatarsal. In both an accident had caused violent adduction of the tarsus, while the anterior part of the foot was fixed. In the third case the first metatarsal was displaced inwards, while the second, third, and fourth metatarsals were displaced outwards and on to the dorsum, and showed some comminution of their bases. The patient had fallen from a height, and the injury resulting suggested that the tarsus had acted as a wedge, the apex of which was formed by the internal cuneiform. In all three cases the diagnosis was easy; reduction was accomplished without difficulty under an anæsthetic; the foot was fixed in plaster for three weeks, and the anatomical and functional results were entirely satisfactory.—Dr. Alexander MacLennan described an Anatomical Method of Enlarging the "Gridiron" Incision, with special reference to removal of the retro-cæcal appendix. After splitting the external oblique, the rectus sheath was to be cut transversely at a level corresponding to the insertion of the fibres of the internal oblique which arise from the crest of the ilium, a finger's breadth above the anterior superior spine. The split was continued outwards to the iliac crest. Further enlargement was obtained by cutting the origin of the internal oblique and transversalis muscles from the crest. In this way the upper part retained the ilio-hypogastric for its innervation, and the lower retained the ilio-inguinal. The fascia and peritoneum were cut on the same line. Thus an extensive view could be obtained of the ascending colon and the appendix hidden in its mesentery. The outer layer of the colic mesentery was then divided by scissors and the appendix removed. The closure was accurate and easy. The method was illustrated by drawings by Dr. William Mackie.

WEST LONDON MEDICO-CHIRURGICAL SOCIETY.—A meeting of this society was held on Dec. 1st, Mr. W. McAdam Eccles, the President, being in the chair.—Dr. Seymour Taylor read a paper on Unrecognised Diphtheria. He said that in diagnosis of doubtful cases one might easily arrive at a wrong conclusion, especially in diphtheria, in which there was no rash or exanthem to guide one, and the false membrane might be situated so as to be invisible, or it might even be absent. The difficulty, therefore, arose chiefly in those cases of diphtheria with simple sore-throat without any of the confirmatory concomitant signs of false membrane, enlarged cervical glands, or of albuminuria. The following illustrative cases were related. 1. A man complained of choking and difficulty in swallowing. He had a nasal intonation, absence of knee-jerks, and palate reflex. No history of sore-throat could be obtained, until after persistent inquiry it was found that he had had a mild sore-throat three months previously. This was called to mind by a ship-mate who had suffered from a similar affection, and at the same time—namely, when both were engaged in cleaning out some part of the ship from decomposing refuse. 2. A woman complained of weariness and dyspnœa. She had paralysis of the right side of the face; no patellar and no palate reflexes. A history of sore throat could not at first be obtained. Later it transpired that both she and another woman had had sore throats shortly after the clearing of an obstructed and offensive drain. Other similar illustrative cases of mild and neglected sore throats followed by palsy of muscles and other signs of toxic peripheral neuritis were given. Attention was drawn to the clinical fact that the chief danger of overlooked diphtheria was the possibility of subsequent paralysis of the heart muscle, and cases were described bearing on this fact. It was urged that a skilled bacteriologist paid by the State should be available so that every case of suspicious sore throat could command his services. Swabs should be taken, not only from the fauces, but also from the inferior nasal meatus, and it was concluded by Dr. Taylor that a patient could not be certified as free from diphtheria unless and until two separate swabbings at one week's interval had been made and showed an entire absence of the Klebs-Loeffler bacillus.—Dr. Julius Bernstein dealt with the bacteriological aspects of diphtheria. He considered the most serious difficulty arose from the existence of healthy carrier cases, who might harbour virulent organisms to the possible danger of the community.—The President said that Dr. Taylor's paper raised questions of great importance. He would be interested to hear opinions on certain points. How soon after possible infection could the bacillus be found? What was the best area from which to take a swab? Were there such organisms as "pseudo-diphtheritic bacilli"? What was the longest time true diphtheria bacilli had remained in the throat of a carrier?—Dr. F. G. Crookshank said the practitioner's first duty, if he suspected diphtheria, was to give antitoxin. The medical man who first gave antitoxin safeguarded his patient; he who took a swab and waited safeguarded himself only.—The discussion was continued by Dr. G. C. Crichton, Dr. A. Ogier Ward, Mr. B. M. Bond, Dr. E. A. Saunders, Dr. Rickman Lloyd, Dr. Grainger Stewart, Inspector-General R. Bentham, and Dr. F. E. Fry.—Dr. Taylor replied.

CLASS FOR MOTHERCRAFT, BRIGHTON.—The Brighton education committee at its meeting on Nov. 28th approved of a new class for mothercraft at the evening schools. This step has been found necessary owing to the fact that the rearing and bringing up of infants is so little understood among many of the working classes; and further, in consequence of the infantile mortality which is much greater than it ought to be in the town.

Reviews and Notices of Books.

Die Experimentelle Bakteriologie und die Infektionskrankheiten, mit besonderer Berücksichtigung der Immunitätslehre. (*Experimental Bacteriology and Infectious Diseases, with Special Reference to the Theory of Immunity.*) By Dr. W. KOLLE, Professor of Hygiene and Bacteriology in the University of Berne, &c., and Dr. H. HETSCH, Staff-Surgeon in the Berlin War Office. Third enlarged edition. In two volumes. Vol. I., pp. 1–496; Vol. II., pp. 496–968. Berlin and Vienna: Urban and Schwarzenberg. 1911. Price each vol., 30 marks; bound, 34 marks.

PERHAPS the most concise general title for the contents of these two large volumes would be "A Treatise on Microparasitology," as will appear from the following summary of their contents.

The first 14 chapters, or lectures as they are here called, deal with the general principles of infective diseases, especially those due to bacteria. Thus after an introduction on the use of the microscope, we are initiated into the morphology and biological characters of the bacteria. The means of destroying them, the mechanism of infection, the methods of resistance afforded by antitoxins, agglutinins, and so forth, are next discussed, as well as the nature of anaphylaxis, and the general principles of serum diagnosis and treatment. The different infective diseases of man and animals are then considered in turn, anthrax, cholera, and typhoid fever each having a chapter to itself, and one being devoted to paratyphoid infections and flesh poisoning. Bacillary dysentery is dealt with in Chapter XIX., and the one following is devoted to bacterium coli commune and intestinal bacteria. Plague, staphylococcal disorders, Mediterranean fever, and epidemic cerebro-spinal meningitis are next discussed in separate lectures, followed by gonococcal, streptococcal, and pneumococcal affections. Chapters devoted to tetanus, malignant œdema, influenza, leprosy, actinomycosis, and glanders bring the first volume to a conclusion.

The second volume opens with lectures on diphtheria and on tuberculosis, followed by others on botulism, on soft chancre and Ducrey's bacillus, and on affections due to bacillus pyocyaneus. The three next lectures are devoted to a series of epizoötics—chicken cholera, hog cholera, swine fever, and swine erysipelas—bringing the established bacterial diseases to an end. Chapter XLII. deals with spirochætæ and the maladies due to them, syphilis being dealt with separately in the following chapter. A discussion of the general characters of protozoa occupies Chapter XLIV., and amœbic dysentery is dealt with in Chapter XLV. The next 40 pages are occupied with a single lecture on diseases due to flagellates, including the various trypanoses and kala-azar. After a short section on coccidial disease we are introduced to the subject of malaria in Lecture XLVIII. and to the piroplasmoses in Lecture XLIX. The following five chapters are devoted to diseases due to undiscovered organisms—rabies, foot-and-mouth disease, rinderpest, small-pox, and yellow fever; and Lecture LV. to the hyphomycetes and blastomycetes. Three sections are concerned with animal parasites belonging to the metazoa—ankylostoma, trichina, and filaria; and the last lecture deals shortly with other diseases of unknown causation, such as measles, scarlet fever, rheumatism, and so forth. An appendix reviews methods of cultivation, staining, and microscopical preparations in general. There is a fairly adequate index.

Detailed criticism of so large a book is impossible. However, its very comprehensiveness suggests the question why a few parasites are omitted when so many are included. Of human parasites there remain only the tape-worms and a few round worms, a few words on which would have made the work a complete treatise on parasitology. For the general treatment of the subject dealt with we have nothing but praise; the descriptions are clear and adequate, and the illustrations are numerous and for the most part excellent, many of them being in colours. The authors' views are throughout sane and moderate, and due weight is given to clinical phenomena as opposed to laboratory methods, as, for example, in the advice as to vaccine treatment and estimations of the opsonic index. Here and there we have thought the treatment of some subjects rather slight, as, for instance, that of the nature of fever and of the incubation period in infective diseases, in which latter something more is almost certainly involved than mere multiplication of the bacteria. The account of intestinal bacteria and their influence on health is also scarcely adequate; no mention of Herter's work is made. The advantage of using the term "lectures" instead of chapters is not clear, since a lecture is conventionally a discourse of about an hour's length, whereas in this book the sections vary from one of two pages on Ducrey's bacillus to one of some 50 pages on tuberculosis. In the latter we are struck by the very slight weight attributed to hereditary disposition in this disease, a factor which the authors merely hold to be "not entirely to be disregarded." We note that the spirochætæ are not here classified with the protozoa, as was done by many of the earlier writers on these organisms. In this section it is worth noting that Vincent's angina is attributed to the action of the bacillus fusiformis alone, the accompanying spirochætæ being regarded as non-pathogenic. Of minor slips we notice one sentence (alle Bemühungen ..... erfüllen) repeated word for word on pages 271 and 278, and it is a little surprising to find Homer mentioned in a list of "old Roman writers." But it is an ungrateful task to pick holes in a work of such merit. We observe that the book has already been translated into French, Italian, Spanish, and Russian, and as we know of none in our own tongue equally comprehensive and valuable we hope that it may also appear in English or American garb. Meanwhile, we advise any of our readers who wish to purchase the book to secure the bound edition, as the attempt to read the ill-sewn paper-covered volumes which fall to pieces directly they are opened is productive of acute mental exasperation.

Scientific Memoirs by Officers of the Medical and Sanitary Departments of the Government of India. No. 49. *Dysentery and Liver Abscess in Bombay.* By Major E. D. W. GREIG, M.D. Edin., D.Sc., I.M.S., and Captain R. T. WELLS, M.A., M.B. Glasg., I.M.S. Calcutta: Superintendent Government Printing, India. 1911. Pp. 78. Price 2 rupees, or 3*s*.

THIS volume of the Scientific Memoirs contains an admirable account of some of the factors in the causation of dysentery in India. It includes, amongst other points, the systematic working out of the material sent to the laboratory—viz., stools, pus from liver abscesses, and blood for Widal reaction; the examination of the various strains of the bacillus dysenteriæ isolated and the investigation of the amœbæ found in the liver pus and stools. During this investigation it was found that whenever there were a number of cases of dysentery associated with amœbæ in Bombay the number of cases of bacillary dysentery was small. Thus two tables are given showing the total number of cases of dysentery examined amongst the civil and military population, European and Indian, and the presence or absence of amœbæ or dysentery bacilli in the stools. The results were as follows: of 164 cases of dysentery examined amongst the Europeans, in 83 cases amœbæ were found, but the bacillus in only 3 cases; in similar manner,

amongst 390 cases among the Indians there were 198 cases of amœbæ and only 10 of bacteria.

The general conclusions arrived at are that the incidence of bacillary dysentery in Bombay is low, and that the disease is more frequently associated with amœbæ; that the latter can be cultivated from the stools and pus of liver abscesses; that the amœbæ showed a marked seasonal variation; and that their greatest prevalence corresponds to the season of greatest prevalence of dysentery in Bombay.

The authors also find that the amœbæ cultivated from the stools of dysentery cases and pus of liver abscess cases are not entamœba histolytica or coli, but are probably the same (or similar) forms of amœbæ as those cultivated by Noc from dysentery and liver abscess cases in Cochin China. Two of the most important points determined are:—Firstly, that a moderate leucocytosis, with little alteration in the relative percentages, may occur in slight cases of amœbic dysentery, or in cases where at the time of examination no symptoms of dysentery exist. This, associated with rise of temperature, may indicate an early hepatic invasion by amœbæ, which will, sooner or later, culminate in the grave complication of abscess of the liver. Secondly, it is pointed out that the administration of ipecacuanha, as shown by Major Leonard Rogers, I.M.S., will in this class of cases reduce the temperature and leucocyte curves to normal, and prevent the formation of liver abscess. This administration of ipecacuanha was urged years ago by the late Professor W. Maclean, at Netley, in the treatment of acute hyperæmia of the liver.

This number is certainly in its teachings one of the most fruitful of the Memoirs that have yet appeared, and is worthy of perusal by all who are accustomed to meet cases of dysentery.

The Mechanical Factors of Digestion. By WALTER B. CANNON, A.M., M.D., Professor of Physiology, Harvard University. Illustrated. London: Edward Arnold. 1911. Pp. 227. Price 10*s.* 6*d.* net.

THIS is the first of a series of "International Medical Monographs" which are to be issued by Dr. Leonard Hill and Dr. William Bulloch acting as general editors. This monograph is, we think, most appropriately dedicated to the memory of the late Professor Bowditch, of Harvard University—a charming personality—under whose inspiration the researches recorded in it were begun. The monographs are intended to deal with subjects of immediate interest, and to be by first-hand authorities who have been engaged in extending the confines of knowledge. All readers of the *American Journal of Physiology* are conversant with Professor Cannon's studies on the mechanical factors of digestion as revealed by means of the Roentgen rays—a department of physiology which he has initiated and extended as well as adorned by the discovery of many new facts. Every medical man will be interested in the book because it deals in a masterly manner with a subject which is of the first importance in practical medicine.

Hitherto of the two general and intimately related factors of digestion—the chemical and mechanical—the former has been more assiduously studied. It would be difficult to cite a better example of the practical rewards to be obtained from the application of a new method than that obtained by the combined use of the bismuth method and the X rays. The sensitiveness of the alimentary canal to operative procedure has been one of the chief difficulties in past investigations of the digestive process. The stomach and intestines are energetically active during digestion and are prone to cease their activities suddenly when the abdomen is opened, a change aptly likened by Meltzer, of New York, to the hush that falls upon a company when a stranger appears at the door. Even Johannes Müller stated that he had never seen clearly the peristaltic movements of the stomach. Now the writing, if not on the wall, can be seen on a fluorescent screen.

The author treats in succession the Movements of Mastication and Deglutition. The pressure exerted by the molars as determined by a spring dynamometer may be as high as 270 pounds. In this connexion we do not find a reference to the observations of Alfonso Borrelli in his work "De Motu Animalium." The author found no evidence of the contraction of the œsophagus in three sections in the act of deglutition as described by Kronecker and Meltzer. The Nervous Control of Deglutition is next dealt with. This is a wide subject, and the author gives an excellent summary as well as a criticism of previous work. He states that the general conclusion that the entire œsophagus is put out of action by section of the vagi must be modified. The part of the tube composed of smooth muscle is capable of quite perfect peristaltic activity without the aid of extrinsic nerves. In the bibliography appended to this section we failed to notice a reference to Ranvier's work on the structure of this "food-carrying" tube. The author passes on to consider the Conditions affecting the Activities of the Cardia—a sphincter which normally is chiefly responsible for the pleasant security which keeps us unconscious of the nauseating odour and highly disagreeable taste of the gastric contents. Intracardiac acidity has a marked effect on the closure of the cardia. Its effect in stopping rhythmical regurgitations of fluid from the stomach into the œsophagus can be recorded graphically. The "acid closure of the cardia" is obviously of practical importance.

The Movements of the Stomach are next considered, and a full account is given of the function of this organ acting as a reservoir, and of mixing and propelling the food, as performed by different parts of the organ—the double function that is cited in every text-book on physiology. What was not revealed to the eyes of Johannes Müller can now, thanks to the bismuth and X ray method, be made visible to every student of medicine. He can see the continued uninterrupted peristalsis until the stomach is swept clear of its contents—2300 waves passed over the pylorus during a single digestive period in a cat, and all the cat had had to eat was 15 grammes of bread! In discussing the Effects of Stomach Movements on the Contents the author states that during a single digestive period the body of the stomach may contract from a large conical sac, many centimetres in circumference, to a narrow tube little larger than a loop of intestine, and that during this alteration the pressure remains practically uniform. The left and right half of the stomach have quite distinct functions—peristaltic waves are present in the right and absent in the left half. Next the Stomach Movements in Relation to Salivary Digestion and Gastro-enterostomy are considered.

The chapter on the Passage of Different Foodstuffs from the Stomach, a subject popularised by Beaumont, is one that must interest all physiologists. The wound of Alexis St. Martin helped humanity indeed. Proteins take much longer than certain carbohydrates to pass the pylorus—a circumstance which can be explained by the remarkable mechanism of the pyloric sphincter and its "acid control," which is next dealt with, and is regarded by the author as "one of the most remarkable automatisms in the body." The pylorus is truly a "janitor justus," and makes the relation between gastric and intestinal digestive processes orderly and progressive. The account of the whole mechanism reads more like a romance than the story of a prosaic every-day humble function. The Movements of the Small Intestine—itself the very centre of the essential

activities on which the body depends for nourishment—are discussed in an attractive fashion. The Movements of the Large Intestine as they can be seen and observed in carnivores and herbivores are described. Zoologists will be grateful for this clear study. From another point of view the author makes this emphatic and practical statement, applicable to all men and often—too often—neglected by women: "The importance of responding as soon as the desire to defæcate arises is shown by the observation that the rectum accommodates itself to the presence of a fæcal accumulation, and then does not produce the desire. If the signal is not soon obeyed it ceases to be given."

We have said enough to show how attractively and practically the author has dealt with a subject of primary importance. The old physicians spoke of the "primæ viæ" without knowing much of the potentialities of their walls. On the whole they were right, and Professor Cannon has arisen to justify their faith. Student and practitioner alike can here read and follow the weighty truths as revealed by one who knows fully and writes well. The practitioner will see at once the importance of the practical application of the teaching. We thank the author and the editors for their work, and in congratulating the latter on their first "issue" hope that they will continue in their well-directed discrimination.

Thoughts of a Catholic Anatomist. By THOMAS DWIGHT, M.D., LL.D., Parkman Professor of Anatomy at Harvard. London: Longmans, Green, and Co. 1911. Pp. 243. Price 3*s.* 6*d.* net.

THIS is a rare book in the sense that any writing which reveals a thinking man's most carefully weighed and yet most intimately sacred thoughts must be rare. Few men have so painfully and so conscientiously cross-examined themselves as Dwight has, and fewer still have undertaken the criticism of their own thoughts armed with so deep a religious conviction and so sound a scientific knowledge. Being a Catholic, and having a real and fervent belief in all the tenets of his religion, he viewed with dismay a host of modern tendencies the very conception of which came so gradually and so naturally into the lives of younger men that they are passing to-day uncriticised.

To many of this generation has come a tacit acceptance that the great struggle of "science" and religion is done with; that evolution is beyond dispute; that its happenings are so certain that it has become almost as much an object of "faith" to them as religion itself is to others. This easy acceptance was never given by Dwight; for the younger men the struggle might seem ended, but to him, as he lived through all the phases of its progress, no such mental peace ever came. His early anatomical career was nurtured on the "archetype," which from being at first a fascinating idea ultimately became a horrid nightmare to him. Such a spectre did it develop into at the hands of Owen that the new views of Darwin, which seemed so definitely to slay and bury it once and for all, were hailed with delight; and Dwight confesses that he could have "danced on its grave." He watched the Darwinian views take root and grow; he marked every incident of the great struggle, and the common acceptance of a final victory; and he realised that the ghost that was laid was as nothing compared to the fiend which had issued from its grave. The archetype was a puzzle and a nuisance; but the new views were aiming a death-blow at "the only things that matter." Dwight watched the course of public opinion, he saw the pendulum swing over till any and every dogma issued in the name of the new science was eagerly swallowed whole and accepted as final, without any investigation of its merits or its truth. He saw with dismay the last phase, in which he charges the scientific world with having given dangerous and unproven theories to masses too weak to weigh and too ready to believe; and with having created a disastrous and widespread disregard of religion and morality.

For him there was no explaining away of deeply rooted belief by "the slang which in biology is allowed to pass for argument," and no acceptance of the findings of all those hasty investigators who so eagerly overhauled the body of man in search of traces of the monkey. With some of them he joined battle, and by long and patient researches into the numerical variations of the spinal column he destroyed all belief in the too readily accepted teaching of Rosenberg that the vertebral column of man was progressively tending to shorten by the forward migration of the pelvic girdle. Man, with his reason, his knowledge of right and wrong, and above all his soul, could never in Dwight's judgment be imagined as a glorified higher ape; that he had once been something higher, and not something lower, was the only possible solution of the problem of his origin.

The book in which these thoughts are given to the world is one that the reviewer feels it wrong to submit to any critical analysis, for there is in it the impression that it is the well-considered outcome of very deep, and often very painful mental struggles. The thoughts of Thomas Dwight, though they may not be submitted to the dissection of the critical reviewer, are those that must interest, and do good to, everyone who is engaged on any branch of the great study of mankind.

Transactions of the Medico-Legal Society for the Year 1910–1911. Edited by DIGBY COTES PREEDY, M.A., LL.M. Cantab., L.S.A. Lond., Vice-President of the Society, of the Inner Temple and Oxford Circuit; Barrister-at-Law. Vol. VIII. London: Charles Griffin and Co. Pp. 184.

THE annual report of the Medico-Legal Society contains, as usual, some excellent papers and notes of discussions upon various topics of the nature indicated by its title. They are topics which, outside the walls of the society's meeting-place, bring individual members of the two professions of medicine and law into conflict quite as often as into association, and, moreover, are generally of public as well as of professional interest. Indeed, members of the Legislature might usefully join the society and learn from those whose knowledge of their subject is derived from personal observation and practical experience how much there is that needs consideration and revision in many Acts of Parliament that are left to remain from year to year unamended. For example, at a meeting recorded in the present volume a great deal might have been learnt from experiences related by Dr. R. J. Collie and others as to the disastrous effects produced in some instances by the Workmen's Compensation Act. The fact that in every year a very large number of workmen receive compensation for genuine accidents and for conditions undeniably existing and arising out of those accidents, and that the relief thus afforded is very valuable to its recipients, does not excuse the fact that in other instances fraud is perpetrated freely, and that the State does nothing to prevent or to punish a form of criminality for the creation of which it is responsible.

Legislators to whom we have specially referred will find equally instructive matter for their perusal in two or three of the other papers before us—Can the Abuse of Drugs be Prevented by Law? (Mr. Wippell Gadd) and Secret Remedies and Patent Medicines (Dr. F. W. Tunnicliffe) may be mentioned. The undignified antiquity of some of the Acts which we find governing us when we look into such a question as the stamp duties on medicinal compounds would alone suggest the need for reconsideration of the whole topic in the light of modern scientific knowledge and of modern interest in the public welfare. The history of the

law and practice connected with the ancient office of coroner has recently been the subject of direct inquiry for the information of Parliament, but there has been no legislative sequel to the departmental committee's report, and the lights and sidelights thrown on the subject by Dr. Wynn Westcott and Dr. F. J. Waldo are therefore still of potential value to anyone who wishes to master a subject which we all hope to see dealt with by the Government before long.

"Blood-tests" is the title of a paper which should be found instructive by advocates practising in criminal courts in which these are the subject of evidence, and the presidential address of Sir John Tweedy upon the "Deterrent Influence of Social and Legal Restrictions on the Medical Thought and Practice" again deals with a topic of public as well as of professional and medico-ethical interest.

Handbuch der Technik und Methodik der Immunitätsforschung. Herausgegeben von Professor Dr. R. KRAUS in Wien, und Dr. C. LEVADITI in Paris. Erster Ergänzungsband. Mit 14 Tafeln, 8 Kurven, and 17 teils farbigen Abbildungen im Text. Jena: Gustav Fischer. 1911. Pp. 664. Price, paper, M.24; bound, M.26.50.

RESEARCH in connexion with the complex problems of immunity is proceeding with remarkable activity in all civilised countries. The two volumes of Professor Kraus and Dr. Levaditi's well-known handbook gave as exhaustive an account of the practical aspects of the subject at the time they were published as was practicable. The editors state in their preface to this, the first supplementary volume, that it is their intention to issue yearly similar volumes. The size of this one gives some indication of the amount of work which has been done upon various aspects of immunity and affords the best demonstration of the necessity for such publications, since the matters dealt with are all of importance and have all been the subject of noteworthy work. It contains 25 separate articles, some dealing with more or less abstruse problems in connexion with various details of the immunity reactions, others with more directly practical questions, such as the use of specific serums and vaccines. We briefly refer to some of them.

Dr. M. von Eisler describes some of the new methods of obtaining more virulent toxins from the tetanus bacillus, and the use of serums obtained therefrom. Dr. R. Doerr gives an account of dysentery toxin and antitoxin. He states that it is generally accepted that only the Shiga-Kruse variety is to be regarded as toxic, and that the nature of the corresponding serum is antitoxic. Dr. Salimbeni discusses cholera toxins and antitoxins, and describes the results obtained with serum treatment in the Russian epidemic of 1908–1909. The subject of meningococcus serum is fully dealt with by Dr. St. Baecher, and the uses and results of the various forms are described. Professor Sobernheim deals with the preparation and mode of employment of anthrax serum. Dr. B. Schick contributes an interesting article on the intracutaneous estimation of diphtheria antitoxin, a method by which much smaller quantities of antitoxin may be titrated.

Dr. C. Levaditi, one of the editors, contributes an important review of phagocytosis and the opsonins, and describes the technique of the preparation and use of vaccines after Wright's methods. Professor C. von Pirquet gives an interesting summary of the various local tuberculin reactions. The complex question of anaphylaxis with its recent developments is discussed at considerable length in two separate articles, the first by Dr. A. Besredka, the second by Dr. A. Biedl and Dr. R. Kraus. Several of the articles are devoted to a consideration of various phases of the problems of immunity in tuberculosis. Professor Paul Römer discusses the action of the bovovaccine of Behring and of similar attempts to induce immunity, and Dr. E. Löwenstein describes fully many of the modifications of tuberculin, and gives details as to the results obtained with them. He also contributes an article on antibodies in tuberculosis, in which their nature and diagnostic applications are considered. The various serums that have been introduced for the treatment of tuberculous disease are also described and discussed. Professor H. Vallée deals with the results of cutaneous and conjunctival reactions with tuberculin in cattle. Other articles are devoted to the diagnosis of glanders, the treatment of rabies, the exciting cause of vaccinia, and the serum reactions from malignant tumours. There is also an important description of the technique of the investigation of acute poliomyelitis by Dr. K. Landsteiner.

Each article has a full bibliography attached to it, and many of them are illustrated by diagrams or plates. The book is a valuable addition to the literature of immunity and is indispensable for a fully-equipped bacteriological laboratory.

LIBRARY TABLE.

Medical Education and Infant-feeding: An Impeachment and a Suggested Remedy. By D. HASTINGS YOUNG, M.B., Ch.M. Edin. London: George Routledge and Sons, Limited. 1911. Pp. 120. Price 2*s.* 6*d.*—This little book directs attention to a matter which certainly deserves the earnest consideration of the General Medical Council, the Colleges, the Universities, and other bodies concerned in the education of the rising generation of medical practitioners. No one, we imagine, would deny that among the most urgent questions in medical progress at the present moment is that of infant mortality. Queen's College, Belfast, is the only medical school that demands and makes compulsory a course of instruction in infant dietetics. At the present moment all public ordinances as to the management of infants rest in the hands of medical men, and the public medical service, splendidly served as it is, is none the less composed of medical men without extensive clinical experience. Dr. Hastings Young calls attention to the position which results. There can be no doubt that the methods of infant feeding require unification, as Dr. Sidney Davies, medical officer of health of Woolwich, has pointed out. There is no uniformity between the directions given by one authority and possibly by another situated geographically next door to it. This causes endless confusion and want of confidence. Dr. Hastings Young suggests that Dr. Truby King's method for preparing modified or so-called humanised milk, which has been extensively used in New Zealand, should be universally adopted. This, to our mind, is quite an unpractical suggestion. The method is not a good one, and is even more complicated than the original method of Professor Frankland. Infants must be treated individually, for they are individuals, however generic in their behaviour. Nothing can replace the human mammary gland; the next best thing to it is the human mind intelligently trained. We take it, however, that Dr. Hastings Young is not suggesting that the overloaded curriculum of the student should have added to it the chemistry of infant feeding as a compulsory subject. The lesson of his book is that in clinical lectures dietetics should be given a regular place, and that examiners should take the subject into consideration.

Practical Physiological Chemistry. By PHILIP B. HAWK, M.S., Ph.D. Third edition, revised and enlarged. London: J. and A. Churchill. Pp. 440. Price 16*s.* net.—This is an eminently practical book which should be of great service to the laboratory student. It has run rapidly into three editions, the first having been issued in 1907 the

second in 1909, and the third recently. The favourable reception which has been accorded to the book speaks well for it. The pages show care in regard to revision and in the choice of trustworthy analytical methods. There are two full-page plates of absorption spectra in colours, four additional full-page colour plates illustrating microscopical preparations, and 127 figures, of which 12 are in colours. The plan of the book assumes that the student possesses some knowledge of chemistry and physiology, as otherwise he would find the opening chapter on enzymes difficult to follow, but it is just the chapter for the student about to attack practical considerations, and an account of enzymes usefully precedes the sections on carbohydrates, salivary digestion, and the decomposition, synthesis, classification, and properties of the protein. Gastric digestion follows in proper sequence, then discussion of the fats, pancreatic digestion, bile, and putrefaction products. Excellent practical chapters on fæces, blood, milk, and urine find their places afterwards in logical order. Footnotes throughout the pages serve the purpose of recording most recent experimental work, and of giving further analytical details, as, for example, the preparation of test reagents and hints on laboratory procedure. The book is an excellent presentation of the subject, is up-to-date, and clear in its directions.

Makers of Mischief. By STANLEY PORTAL HYATT. London: T. Werner Laurie. 1911. Pp. 275. Price 6*s*.—Mr. Hyatt, whose vigorous style, well-drawn characters, and power of depicting a scene in a few words please readers who may not always be at one with him in all his opinions, has given us another novel with South Africa for its setting. The "makers of mischief" are certain political agents of a foreign power whose machinations, in order to get concessions of land, stir up strife between white men and the natives. The story, which opens in the year 1888, takes the reader back to the time when a large part of what is now British South Africa was entirely in the hands of savages, and it tells how an experienced English hunter, together with his less experienced cousin, cross the almost waterless Kalahari desert in search of a rumoured rare animal, while another young Englishman is left to guard the camp and its treasures during the absence of the hunting party. The stirring adventures of the travellers across the desert, the surprises which awaited them at the end of their journey, the attack on the camp, and the subsequent happenings in the land of the Matabele, will be followed with sustained interest from the first to the last chapter.

MEDICINE AND THE LAW.

An Action arising out of the Sale of a Medical Practice.

IN an action recently tried by Mr. Justice Scrutton sitting without a jury, points of law were raised of some interest, in addition to the questions of fact usually at issue, where the value of a medical practice is questioned after a sale has taken place. The plaintiff, the widow of a medical man, claimed for the balance of the price agreed to be paid by the defendant to her for her introduction to the practice of her late husband and to patients whom he had attended, for board and lodging and for furniture, and also damages for the breach of an agreement to take a lease of the house in which the practice was carried on and which was the plaintiff's property. The defendant denied the items of the claim, and counterclaimed for damages for misrepresentation as to the character of the practice, for £60 as fees for medical attendance on the plaintiff's family, and for breach of the agreement to introduce him to patients. The plaintiff, in her reply as to the sum of £60 for attendance, pleaded an immemorial custom of the medical profession to attend members of the profession, their wives and families without charging for so doing, and in the alternative alleged that the charges were excessive. The legal points referred to arose out of the fact that the affairs of the deceased were in the hands of the Official Receiver, and that the widow had not taken out letters of administration, the defendant's case being that if any money was due from him in respect of the value of the practice it must be for the sale of the goodwill, the price of which should go to the estate. Considerable argument took place with regard to the question of goodwill in the case of a medical practice as distinct from a trade or business, and a number of cases bearing upon the subject were cited. The defendant did not deny that he had had board and lodging in the plaintiff's house and that she had introduced him to some patients. He had also written a letter to the plaintiff thanking her for what she had done, and had expressed his "profound gratitude and respect." Evidence was given as to the customs in connexion with the sales of practices, and with regard to the medical attendance of the defendant upon the plaintiff's children and upon a servant. There had been serious illness among the children. Upon the question whether the payment for the practice was due to the plaintiff or to the estate, it was argued on behalf of the plaintiff that the agreement was personal between her and the defendant. She occupied the house, which was her own, and she was able to introduce him. Mr. Justice Scrutton, in giving judgment, reviewed the facts as outlined above, and upon the question of goodwill said that in the case of a medical man a successor was ready to pay a sum calculated upon the past profits of his practice, and that this appeared to be paid in respect, firstly, of an unreasonable propensity in human beings to continue going to the old house, which gave that house a certain value, and secondly, in respect of the fact that if people were told that the incomer was the successor of the previous occupant of the practice, who had treated them, they would be induced to employ that successor. He considered that the plaintiff had sold the right to carry on the practice in the old house, which, in fact, was hers, and also that she had in the second place sold the right to say "I am Dr. ——'s successor." The first right was personal to the plaintiff and had nothing to do with the estate; as to the second he had some difficulty in deciding, but though inclined to think that it belonged to the estate it had been included with the first in one contract by the widow, and he held that she could sue on that contract, although the estate might afterwards claim its share from her. He therefore decided in favour of the plaintiff as to the claim for the balance of the purchase price. As to the introductions, he referred to the letter mentioned above and refused to find that there had been a breach of contract or misrepresentation. With regard to board and lodging he held that the sum of £2 per week was a fair charge. As to the question of charges for medical attendance on the plaintiff's children and servant, he found that there was not a binding custom but a very general practice not to charge the widow and children of a deceased medical man for attendance shortly after his death. In ordinary circumstances, where medical advice was sought and nothing was said as to payment, there was an implied contract to pay ordinary charges. In a case where a practice of not charging existed, if a medical practitioner intended to charge he should say so, and then the patient would have the opportunity of seeking another medical attendant. In the case before him the defendant would have realised if this had been done that the plaintiff would have been recommending him to her late husband's patients, and at the same time calling in another medical man to treat her own family, which would obviously have been prejudicial to himself. With regard to the servant, he was of the opinion that the defendant attended her without intending to make her mistress liable, and that he must seek payment from the servant herself. He gave judgment for the plaintiff on the claim for a sum to be calculated upon his findings, and also for the plaintiff upon the counterclaim.

A full report of the legal argument will be found in the *Times*, to which we have been indebted.

MANCHESTER SURGICAL AID SOCIETY.—According to the annual report of this society 559 applications were dealt with last year, as against 483 in 1910. The society provides necessary surgical appliances for applicants too poor to buy them. As in the case of most hospital and allied societies the year closed with an overdraft on the bank.

THE GENERAL COUNCIL OF MEDICAL EDUCATION AND REGISTRATION.

TUESDAY, NOV. 28TH.

Penal Cases.

THE Council took up the consideration of penal cases.

The first case to be decided was that (adjourned from May 24th, 1911), of Arthur William Wilson, registered as of 102, Tufnell Park-road, N., M.B., Mast. Surg. 1887, Univ. Edin., who had been summoned to appear before the Council on the following charge as formulated by the Council's solicitor:—

That you have knowingly and wilfully on various occasions assisted one Arthur Jacobs, of Jacobs and Clark, 156, High-street, Camden Town, a person not registered as a dentist, in carrying on practice as a dentist by administering anæsthetics on his behalf to persons coming to him for treatment. And that in relation thereto you have been guilty of infamous conduct in a professional respect.

The complainants were the Society of British Dentists.

At the conclusion of the proceedings on May 24th, 1911, the following decision of the Council was announced by the President:—

Arthur William Wilson: I have to inform you that the facts alleged against you in the notice of inquiry have been proved to the satisfaction of the Council. The Council has not proceeded to pronounce judgment on the facts proved; but has postponed it to the next session of the Council, when you will be required to attend and to produce evidence as to your good conduct in the interval from persons in the neighbourhood familiar with your practice.

Mr. Wilson appeared in person and was accompanied by his solicitor, Mr. Lees.

Mr. LEES submitted to the Council a statutory declaration from Mr. Wilson to the effect that the latter had not, since the last session of the Council, assisted any unregistered person in any way, and that he had faithfully observed in the letter and spirit the undertaking that he gave to the Council.

Communications were read from medical men and other persons of position testifying to the good conduct of Mr. Wilson.

The PRESIDENT, in announcing the decision of the Council, said: Mr. Arthur William Wilson, I have to inform you that the Council, having taken account of the evidence you have produced and the assurances you have given, have not seen fit to direct the Registrar to erase from the Medical Register the name of Arthur William Wilson.

The next cases to be considered were those (adjourned from May 26th) of James Robertson Wallace, now registered as of 68, Jermyn-street, London, S.W., M.B., Mast. Surg. 1885, Univ. Edin., and Charles Edward Trimble, now registered as of 68, Bute-street, Treherbert, Glamorgan, Lic. R. Coll. Phys. Edin. 1898, Lic. R. Coll. Surg. 1898, Lic. Fac. Phys. Surg. Glasg. 1898, who had severally been summoned to appear before the Council on the following charge, as formulated by the Council's solicitor:—

That you have associated yourself in your professional capacity with an institution, termed the Sandow Curative Institute, which systematically advertises for the purpose of procuring patients who are to receive, either by correspondence or by attendance at the said institute, treatment for disease under the personal direction of Eugen Sandow, who is not a registered medical practitioner, and that you have approved of and acquiesced in such advertising. And that in relation thereto you have been guilty of infamous conduct in a professional respect.

The complainants were the British Medical Association.

At the conclusion of the proceedings on May 26th, 1911, the following decision of the Council was announced by the President:—

Mr. James Robertson Wallace: I have to inform you that the facts alleged against you in the notice of inquiry have been proved to the satisfaction of the Council, but that the Council, in order to give you an opportunity to reconsider your position, has postponed judgment in your case till the next session, when you will be required to be present and to produce evidence as to your conduct in the interval.

Mr. Charles Edward Trimble: I have to inform you that the facts alleged against you in the notice of inquiry have been proved to the satisfaction of the Council, but that the Council, in order to give you an opportunity to reconsider your position, has postponed judgment in your case till the next session, when you will be required to be present and to produce evidence as to your conduct in the interval.

The case of Mr. Trimble was first considered. He appeared in person and submitted a statutory declaration to the effect that he had had no connexion whatever with the Sandow Institute since he appeared before the General Medical Council in May last. He had given up his post there in April last, and had had absolutely nothing to do with the institute since. A testimonial as to character from a medical practitioner was read.

The PRESIDENT announced the decision of the Council as follows: Mr. Charles Edward Trimble, I have to inform you that having regard to the evidence you have produced and to your conduct since the last session of the Council, the Council does not see fit to direct the Registrar to erase your name from the Medical Register.

The Council then considered the case of Mr. James Robertson Wallace. Mr. Wallace appeared in person and was represented by Lord Robert Cecil, K.C., and Mr. A. Neilson, instructed by Mr. G. Lewis, solicitor.

The complainants were represented by Mr. Smith Whitaker.

Lord ROBERT CECIL at the outset took objection to a statutory declaration lodged by the complainants on the ground that it was dated Nov. 23rd. He submitted that it did not comply with the Standing Orders of the Council, which laid down that seven days' notice of any further facts and evidence should be given to the accused practitioner.

Mr. SMITH WHITAKER said that the complainants submitted this document in reply to the declaration of Mr. Wallace and to the communication of the solicitor to the Council asking whether it was the complainants' desire to submit any evidence to the Council.

The LEGAL ASSESSOR (Mr. BODKIN) ruled that the statutory declaration in question did not comply with the Standing Orders, and that any evidence which it was proposed to tender in connexion with it could not be properly received or considered by the Council. The document had been sent to members of the Council, but as they were acting in a completely judicial capacity any statements or facts in it which had been read by members of the Council would not operate in any way upon their minds, and would be completely disregarded by them in considering the evidence which would be adduced to the Council.

Lord ROBERT CECIL said that his client had sought but had been unable to ascertain from the Council what they desired him to do. He was in a very difficult position. He had to consider exactly what he had to do and what was the objection of the Council to his conduct in the past. Counsel argued that what his client had to avoid was (1) association with an institution which undertook the treatment of disease and which systematically advertised for patients, and (2) the aiding and abetting an unregistered person in the treatment of disease. If he avoided these things he was not guilty. The Sandow Curative Institute now neither systematically nor in any way advertised for the purpose of procuring patients who were to receive treatment for disease under the direction of Mr. Eugen Sandow. Lord Robert Cecil proceeded to read a declaration made by Mr. Wallace, in which he stated that upon this alteration being made in the Sandow Institute he resumed the duties which he had suspended. Since that date he had superintended, advised, and accepted responsibility for the treatment of persons who came to the institute for the course of exercises. No advertisements were now issued. The treatment at the institute was therefore now absolutely under the control of Mr. Wallace, and was given by him as a responsible medical man in pursuance of his judgment as to what was required. He accepted full responsibility for everything that was done under his direction. All the treatment was done under the direct superintendence of a medical man and without advertising. Mr. Wallace had therefore avoided what it was necessary for him to avoid. Lord Robert Cecil intimated, in conclusion, that he would not call Mr. Wallace as a witness as he had no questions to ask him, but he tendered him for cross-examination if required.

After some discussion with the Legal Assessor Mr. Wallace entered the witness-box.

Mr. SMITH WHITAKER: Has there been any change in the practice of the Sandow Institute?

Mr. WALLACE: Yes.

What is it?—I see all the patients and I prescribe the broad lines of treatment on which the exercise is to be given. I take the whole responsibility of the medical treatment of the case.

Does Mr. Sandow see cases now and again?—Now and again.

Does he accept any responsibility?—No, I accept the whole.

Then the whole of the Sandow Institute is carried on under your guidance?—Yes, so far as the medical treatment is concerned.

Mr. SMITH WHITAKER then submitted that although the advertising might be discontinued the profits of the advertising remained. This practitioner had continued in the employment of the institute, his association with which was condemned by the Council.

After deliberation *in camerâ* the PRESIDENT said: Mr. Robertson Wallace, I have to inform you that the Council are not satisfied with the evidence as to your conduct which you produce, and they have accordingly decided to give you a further opportunity of producing more satisfactory evidence regarding your professional conduct. Such evidence, they instruct me to tell you, ought to be testified by medical practitioners or other persons of position who may be acquainted with your practice and conduct in the interval, and for this purpose they are postponing judgment on your case once more until the next session of the Council.

The Council adjourned.

WEDNESDAY, NOV. 29TH.

The Council resumed its sittings at its offices, 299, Oxford-street, W. Sir DONALD MACALISTER, the President, was in the chair.

Penal Cases.

The Council dealt with charges against medical practitioners.

The first case considered was that of William Dutton Akers, registered as of 67, Sackville-road, Hove, Lic. Soc. Apoth. Lond. 1892, Mem. R. Coll. Surg. Eng. 1898, Lic. R. Coll. Phys. Lond. 1898, who had been summoned to appear before the Council on the following charge as formulated by the Council's solicitor:—

That you abused your position as a medical man by committing adultery with a Mrs. Geddes, with whom you stood in professional relationship, of which adultery you were found guilty by the decree of the Probate, Divorce and Admiralty Division (Divorce) of the High Court of Justice, dated Dec. 16th, 1910, in the case of Geddes *v.* Geddes and Akers, in which you were the co-respondent, which decree was made absolute on June 26th, 1911. And that in relation thereto you have been guilty of infamous conduct in a professional respect.

There was no complainant in this case, nor did Mr. Akers attend in answer to his notice.

After certain evidence had been submitted the PRESIDENT announced the judgment of the Council as follows: I have to announce that the Council have judged William Dutton Akers to have been guilty of infamous conduct in a professional respect, and have directed the Registrar to erase from the Medical Register the name of William Dutton Akers.

The next case to be considered was that of James Williamson Skelley, registered as of Blaenrhondda, Treherbert, Glamorgan, Lic. R. Coll. Phys. Edin. 1905, Lic. R. Coll. Surg. Edin. 1905, Lic. Fac. Phys. Surg. Glasg. 1905, who had been summoned to appear before the Council on the following charge, as formulated by the Council's solicitor:—

That you abused your position as a medical man by committing adultery with a Mrs. Unwin, whom you had been attending professionally, of which adultery you were found guilty by the decree of the Probate, Divorce, and Admiralty Division (Divorce) of the High Court of Justice, dated June 14th, 1911, in the case of Unwin *v.* Unwin and Skelley, in which you were the co-respondent. And that in relation thereto you have been guilty of infamous conduct in a professional respect.

The complainant was Mr. Clyde Longman Hayes, a registered medical practitioner.

Mr. Skelley attended, accompanied by Mr. Wing, solicitor. The complainant was represented by Mr. Neal, solicitor.

Evidence was submitted to the Council in relation to the charge. This included accounts for professional work.

Mr. SKELLEY gave evidence on his own behalf and stated that he had become acquainted with Mrs. Unwin prior to her marriage and also before he had attended her professionally.

The PRESIDENT announced the judgment of the Council as follows: James Williamson Skelley, the Council have judged you to have been guilty of infamous conduct in a professional respect, and have directed the Registrar to erase from the Medical Register the name of James Williamson Skelley.

The Council then considered the case of George William Hammond. The Dental Committee reported:—

The said George William Hammond was registered in the Dentists Register on December 31st, 1878, as "in practice before July 22nd, 1878," and his address in the Register for the current year is Dental House Ripon.

The Committee find that the following facts were established by the evidence: That on March 22nd, 1911, the said George William Hammond was convicted at Ripon of the following offence, of attempting to steal certain goods from the Church Lads' Brigade Club Room in Allhallowgate, and that he was sentenced to three months' imprisonment with hard labour.

Mr. Hammond sent a letter stating that he would not be able to be present.

The PRESIDENT announced the judgment of the Council as follows: I have to announce that the Council, having considered the facts found in the report of the Dental Committee, does not direct the Registrar to remove from the Dentists Register the name of Mr. George William Hammond.

The next case to be considered was that of John Edwards, registered as of 1, Chadwell Heath-lane, Chadwell, Essex, Lic. Soc. Apoth. Lond. 1893, who had been summoned to appear before the Council on the following charge as formulated by the Council's solicitor:—

That you were on Sept. 5th, 1911, convicted at the Central Criminal Court on your own confession of the following misdemeanour—namely, of having unlawfully and knowingly signed a false declaration of your personal knowledge and belief and thereby enabled one Reuben George Rittman to obtain a passport for travel in a foreign country, for which offence you were fined £25.

Mr. Edwards appeared, and was accompanied by Mr. Forrest Fulton, his counsel.

Mr. FORREST FULTON, in addressing the Council on behalf of his client, said that on behalf of Mr. Edwards he desired to express deep regret for what had happened. What Mr. Edwards had done was rather an act of negligence committed in a hasty moment than a deliberate act. What he did was to oblige a man whom he believed to be known to the medical man for whom he was acting. Mr. Edwards was acting in Wandsworth for a medical man who was in bad health, and he was dependent on others for his knowledge of the patients. One night, when the surgery was particularly full, a man entered and asked Mr. Edwards to sign a paper for him. Mr. Edwards was led to believe that this man was the son of some patient of the medical man for whom he was acting. He appended his signature and the man went away. The document in question had not been in use for any lengthened period. It was only when the summons was served upon him that Mr. Edwards remembered vaguely what had occurred.

Mr. EDWARDS went into the witness-box and expressed his great regret.

The PRESIDENT announced the judgment of the Council as follows: Mr. Edwards, I have to inform you that the Council have found your conviction proved; that the Council takes a grave view of the giving of certificates of an irregular character, but that, having taken into consideration all the facts of your case and the assurances that you have given, the Council has not seen fit to direct the Registrar to erase your name from the Medical Register.

The Council adjourned.

THURSDAY, NOV. 30TH.

The Council resumed its sittings at its offices, 299, Oxford-street, W. Sir DONALD MACALISTER, the President, was in the chair.

The Case of Major Fink.

The Council considered the case of George Herbert Fink, registered as of Queen's Gate Chambers, 52A, Cromwell-road, South Kensington, London, S.W., Lic. Soc. Apoth. Lond. 1882, Mem. R. Coll. Surg. Eng. 1883, who had been summoned to appear before the Council on the following charge as formulated by the Council's solicitor:—

That you were on Nov. 10th, 1911, convicted at the Central Criminal Court of the following felony—namely, of forging a banker's cheque for £11,000 3*s.* 10*d.* with intent to defraud, and found guilty but insane, so as not to be responsible according to law, and thereupon ordered to be kept in custody during His Majesty's pleasure.

Major Fink was not present, nor was he represented.

Mr. HARPER (one of the solicitors to the Council) said that the case was a very sad one. In 1886 it appeared that Major Fink joined the Indian Medical Service and was attached to the Bengal Lancers, and until 1900 he was in service in India and he had worked very hard in malarial and

insanitary districts. He served with distinction on the North-west frontier, for which he received the medal and clasp. In 1900 he was invalided home on furlough and applied for an extension of leave, which was refused. He at once sent in his papers and retired on a pension of less than £300 a year. If he had remained another three years in the service he would have been entitled to a much larger one as a Lieutenant-Colonel, and his wife would also have been entitled to a pension on his death. The precipitate action of sending in those papers rather indicated the state of his mind then. Since then he had been very strange and eccentric, and had an ungovernable temper and committed acts of violence at home. About 1907 he opened a deposit acount with the National Discount Company in the City and placed there £600, which he drew on from time to time, until finally there was only £11 3*s*. 10*d*. standing to his credit, which he wished to draw out. In accordance with their custom the bank gave him a cheque drawn by the National Discount Company to the order of Major Fink upon the Union of London and Smith's Bank for that amount. The next day Major Fink telephoned to the National Discount Company that he had lost the cheque, and it was arranged that he should come to the company the following morning to make arrangements for the issuing of a fresh cheque on the usual indemnity. On the same day the manager of the London branch of the Delhi bank received the cheque altered from £11 3*s*. 10*d*. to £11,000 3*s*. 10*d*., together with a letter requiring cash or cheque for the amount. It was said that the alteration was done cleverly, but not in such a way as to deceive any cashier. They sent the cheque to the National Discount Company, who took the matter up. Major Fink was prosecuted, with the result that he was found to be insane. The family had consulted Dr. Maurice Craig as to the condition of Major Fink. Mr. Harper read a letter from Dr. Maurice Craig, dated Nov. 2nd, 1911, and addressed to the General Medical Council. It was in the following terms:—

As you state, I gave evidence at the Old Bailey regarding the mental state of Major Fink. When I saw him I considered that he was a person of unsound mind, and that he had been for some long period. I further stated that I was perfectly prepared to certify him as such. In fact, if what he did can be called a forgery, it was done during a state of mental confusion. As I daresay you know, what he had done was not likely to deceive anybody. Although he had altered the face of the cheque, he had also written other instructions on the back of it, which showed clearly that he was unsound mentally at the time. He is suffering from delusions of persecutions, his illness having been brought about by active service in India, together with dysentery, malaria, &c. As regards the outlook it is impossible for me to say that he will not recover, as these exhaustion cases often clear up under enforced rest, but I did not form a hopeful view of his case.

It was obvious, Mr. Harper added, that Major Fink had no criminal intent. However, after the finding at the Old Bailey it was necessary that the case should be brought before the Council, but it was not necessary for the Council to pass upon him the stigma of finding that he had committed an act implying infamous conduct.

The PRESIDENT announced the decision of the Council as follows: The Council having regard to all the circumstances of the case does not see fit to direct the Registrar to erase from the Medical Register the name of Mr. George Herbert Fink.

Warning Notice as to Professional Conduct.

The Council then sat *in camerâ* to consider the advisability of issuing a warning notice directing the attention of medical men to the resolutions of the Council regarding "infamous conduct in a professional respect." Afterwards it was announced that the Council had agreed to the following notice:—

GENERAL MEDICAL COUNCIL.

Preliminary.—The General Medical Council consider that in the interests of the medical profession it is advisable to bring to the notice of its members certain resolutions which have from time to time been adopted as expressing the views of the Council upon certain forms of professional misconduct which have been or may be dealt with as amounting to "infamous conduct in a professional respect" within the meaning of Section 29 of the Medical Act of 1858. The Council, however, wish it to be distinctly understood that these resolutions are not exhaustive of the forms of professional misconduct which may be dealt with by the General Medical Council under their disciplinary powers, and that the Council are not in any way precluded from considering and dealing with any form of professional misconduct outside the scope or precise language of the resolutions.

AS TO THE SIGNING OF CERTIFICATES.

Resolution adopted by the General Medical Council on Nov. 30th, 1911:—

Whereas registered medical practitioners are in certain cases bound by law to give, or may be from time to time called upon or requested to give, certificates signed by them in their professional capacity, for subsequent use either in courts of justice or for administrative purposes, And whereas such certificates include, amongst others—

Certificates.—(*a*) Under any statute relating to births, deaths, or disposal of the dead; (*b*) under the Lunacy Acts; (*c*) under the Vaccination Acts; (*d*) under the Factory Acts; (*e*) in relation to children or to excusing school attendance; (*f*) in connexion with sick benefit, insurance, and friendly societies; (*g*) in connexion with workmen's compensation; (*h*) in connexion with naval or merchant shipping; (*i*) for procuring the issue of Foreign Office passports; (*j*) for excusing attendance in courts of justice, in public services, in public offices, or at ordinary employments.

And whereas it has been made to appear from time to time that some registered medical practitioners have given and signed untrue, misleading, or improper certificates of the above-specified or other descriptions,

Now the General Medical Council hereby give notice that any registered medical practitioner who shall be shown to have given any untrue, misleading, or improper certificate, *whether relating to the several matters above specified or otherwise*, is liable to be adjudged by them to be guilty of "infamous conduct in a professional respect" and to have his name erased from the Medical Register under Section 29 of the Medical Act, 1858.

The Council adjourned.

FRIDAY, DEC. 1ST.

The Council resumed its sittings at its offices, 299, Oxford-street, W. Sir DONALD MACALISTER, the President, was again in the chair.

Apothecaries' Hall, Dublin.

The report as to the final examinations held by the Apothecaries' Hall, Dublin, in July and October, 1911, was considered.

Sir DAVID MCVAIL said that at the last two or three examinations of the Apothecaries' Hall, Dublin, no paper in midwifery had been set. Papers had been set in medicine and surgery. Formerly a paper in midwifery had been set, but it had been dropped. The only examination that was held on this subject now was a clinical one, and one of the examiners said that that was an oral examination as well. It was for the Council to consider whether it was desirable that in one of the three great subjects a written paper should be dropped. The Examination Committee was of opinion that a paper on the subject of midwifery should always form part of the examination. He moved that the report of the Examination Committee should be adopted by the Council and communicated to the Apothecaries' Hall, Dublin.

This motion was agreed to.

Teaching Institutions and the Preliminary Sciences.

A report was received from the Students' Registration Committee on exceptional cases and on the approval of certain recognised teaching institutions. The latter part of the report set forth that applications had been received for the approval by the Council of the following institutions in regard to the preliminary sciences: Cheltenham College; Dulwich College; Epsom College; Eastbourne College; Felsted School; Harrow School; Hymer's College, Hull; King Edward's School, Stourbridge; Malvern College; Repton School; Trent College, Long Eaton; Whitgift Grammar School, Croydon; and the Technical College, Darlington; all of which were recognised by the English Conjoint Board.

It was resolved by the committee—

1. That, satisfactory evidence as to visitation having been received from the chairman, Cheltenham College, Dulwich College, Epsom College, Eastbourne College, Felsted School, Harrow School, King Edward's School (Stourbridge), Malvern College, Repton School, Trent College, and Whitgift Grammar School be added to the list of recognised institutions approved by the Council.
2. That the Technical College, Darlington (day classes), be added to the list of recognised institutions approved by the Council.
3. That the Committee proposes to draw up a form of application for approval by institutions for regular use.

Dr. NORMAN MOORE, in moving that the Council should approve of the resolution of the committee, drew special attention to the third clause in it. It would be of advantage to have a common form of application which would be filled up by every institution which applied for approval.

Dr. MACKAY seconded.

Dr. CATON asked whether the adoption of the resolution by the Council would place the schools mentioned in the same position as a department teaching the particular subjects in a university or medical school, or was the instruction given in these schools to be preliminary to the study of the same subjects and to be followed up in medical schools.

Dr. NORMAN MOORE said that the student who had attended the courses on chemistry and physics or biology in one of these approved schools, and had passed the examination of the qualifying bodies in these subjects, would not be required to pursue a further course in them unless the particular licensing body, such as the University of London, required

further knowledge. Of course the student would have to comply with the requirements of the particular qualifying body whose curriculum he was pursuing.

Sir HENRY MORRIS intimated that in the next session of the Council he would bring forward a suggestion in the form of a motion that the Council should recommend to all the licensing bodies, whether universities or medical schools, that the study which was taken at these approved institutions should not be allowed—even if it extended over two or three years—to count as more than six months of the medical curriculum. He was prepared to move that if the study were taken in these approved institutions, and if the examination were not passed until three months after the student had entered the medical school, the medical curriculum should be four years and nine months. If the examination were not passed until six months after entering a medical school, he would suggest that no part of the time spent on these studies at any recognised *non-medical* institution, be it either technical science school or college, or polytechnic or secondary school, should be allowed to count as any part of the five years' curriculum. The non-approval by the Council of these institutions had retarded the growth of the public and secondary schools in this country in the direction of being places in which instruction in science was given as well as general culture. He wanted to encourage the secondary schools to become something like the *Real-Gymnasia* in Germany. The attitude of the Council hitherto had been to retard such development in the secondary schools in this country. He also added that in any revision of the subjects of the curriculum it would be a good thing to make it necessary to pass an examination in elementary science as well as in general education before entrance at a medical school, and to add to anatomy and physiology of the first two or two and a half years some amount of chemistry and physics in their application to physiology and pathology, for which there would be ample time.

Sir CLIFFORD ALLBUTT remarked that he would be very sorry if students came up to his own University, and having passed the elements of chemistry and physics, would lay these subjects aside without making further advances in them.

Sir C. NIXON thought that there ought to be strict uniformity in connexion with this matter. In the Universities it was laid down that the medical curriculum should extend over five years from the date of registration. So far as he knew, with few exceptions, the Universities had been loyal to the recommendations of the Council. If now recognition was given to the lectures in physics, chemistry, and biology in secondary schools, and this instruction counted for six months out of the first year of medical study, why should Universities be required to have the whole five years? If the recommendations of the Council were followed, it must exact from medical students the full term of the curriculum. He saw the possibility that the universities might claim for their students the same privileges as the Conjoint Board claimed for its students.

The PRESIDENT observed that the Council had not laid down under what conditions the study thus commenced would be reckoned towards the five years' curriculum. That would be dealt with in June.

Dr. NORMAN MOORE: No part of the five years' study can count until the registration examination has been passed.

Dr. MACKAY said that at the last meeting of the Council it granted recognition to secondary schools under defined conditions. These conditions had been fulfilled by the schools, the names of which were now before the Council. What the committee had done was to put these schools as regarded the subjects in question in the same position as medical schools and polytechnics. There were no regulations different from those of medical schools. What the Council had now to do was to say whether it approved of the schools which the committee had placed before it. These schools were amongst the best in the land.

Sir JOHN MOORE: Who are the visitors under this recommendation?

Dr. NORMAN MOORE: What the Council requires is visitation by a licensing body. The licensing body is responsible for the visitation.

Sir THOMAS FRASER: What is the evidence which the committee had before it as to the fitness of the schools?

Dr. NORMAN MOORE: This Council has no power, so far as I know, of visiting these schools. It certainly had never exercised it. All the medical schools of this country, and all the hospitals in which medical students received their professional instruction, had to be recognised by the qualifying bodies. The Council accepted that. It did not go and visit each. From these schools for which approval was now sought no application could be received unless the qualifying body stated after visitation and inquiry that it was satisfied.

Dr. CATON said that he was sorry that the Council had not been able to consider the memorials from the universities. He wished that it was possible to delay recognition until the matter had been fully discussed.

Dr. NORMAN MOORE: It has been discussed for ten years.

Dr. CATON: It was discussed very briefly and hurriedly.

The PRESIDENT: Communications from three universities have been received which, I think, ought to be referred to the Examination Committee.

Dr. MACKAY said that the Council was bound to consider applications in view of its own resolution.

The Council then agreed to the motion to approve of the resolutions of the Committee.

Medical Certificates and Diplomas in India.

The Students' Registration Committee stated in its report that it had had before it an application from the All-India Sub-assistant Surgeons' Association. That association had passed a resolution in the following terms:—

That a representation be sent to the Medical Council of the United Kingdom for requesting that body to recognise the course of the study of the sub-assistant surgeons in the medical schools of the United Kingdom, in view of the fact that the sub-assistant surgeons undergo a regular four years' training in recognised Government medical schools, and that the Government have admitted their claims to the Medical Registration Act.

The Students' Registration Committee resolved:—

That this application be recorded, but that the committee, in view of the fact that legislation is contemplated, defer further consideration of it for the present.

Sir DAVID MCVAIL moved:—

That the Examination Committee, together with the chairman of the Education Committee and the chairman of the Students' Registration Committee, be requested to obtain full information regarding the conditions under which medical certificates or diplomas are granted in India, and to what extent, if any, *pro tanto* recognition of curriculum and examination should be given by licensing bodies in Great Britain and Ireland, and to report to the Council.

He said that the committee had had a great deal of trouble over this matter. Certain information was desired which only the Government of India could supply. The India Office had written to India to secure it for the committee.

Dr. MACKAY seconded.

The motion was agreed to.

Registration of Medical Students.

Dr. MACKAY submitted a report of the Education Committee upon a resolution submitted to it as to the regulations in regard to the registration of medical and dental students. That resolution directed the committee to report to the Council what alterations in the Regulations (10, 11, and 12) for the Registration of Medical Students were necessary to bring them into conformity with the facts and with the powers of the Council. The Committee recommended—

I. That the following should be substituted for Clauses 10, 11, and 12 above quoted—

It is recommended by the Council—

(10) That every medical student should be registered in the manner hereinafter prescribed.

(11) That no medical student should be registered until he has attained the age of 16 years, has passed a preliminary examination recognised by the General Medical Council, and has produced evidence that he has commenced medical study at a university, or school of medicine, or at a teaching institution recognised by one of the licensing bodies and approved by the Council.

(12) The commencement of the course of professional study recognised by any of the licensing bodies should not be reckoned as dating earlier than 15 days before the date of registration.

II. That the changes recommended in this Report will, in the opinion of the Committee, necessitate a recasting of the Resolutions passed by the Council regarding professional education.

Dr. MACKAY, in moving that the recommendations framed by the committee should be adopted by the Council, said that in Regulation 11 the committee had substituted the words "teaching institution" for "scientific institution," in view of the fact that the Council had recognised certain secondary schools. The other changes were that the imperative "shall" had been replaced by the permissive "should."

Mr. HODSDON seconded.

Dr. ADYE-CURRAN thought that the substitution of

"should" for "shall" was a recognition of the fact that the Council had exceeded the scope of its authority.

The PRESIDENT, in putting the motion, said that he did so on the clear understanding that if it was carried it would be remitted to the Education Committee to draw up a fresh statement of the regulations embodying the changes.

The motion was agreed to.

Preliminary Examination of the Royal Colleges in Ireland.

Sir ARTHUR CHANCE had given notice of the following motion:—

That any "Requirements or Regulations" of this Council regarding the standard in General Education to be observed in Preliminary Examinations which are compulsory on any Irish Examining Body, in the sense that their observance is regarded by the Council as essential for the continued recognition by the Council of the Preliminary Examination of such Irish Examining Body, shall apply equally to all the Irish Preliminary Examinations in general knowledge recognised by this Council.

He said that he would move his motion in an altered form. It would be as follows:—

That as far as concerns the preliminary examination in general education, the Conjoint Board of the Royal Colleges in Ireland shall be regarded by this Council as if the Conjoint Board were a university examining body.

Sir Arthur Chance went on to say that the Irish Conjoint Board only wanted to be treated in the same way as its competitors, and he did not care what the form of words adopted was if this result was attained. The Conjoint Board was, owing to the peculiar circumstances obtaining in Ireland, forced to hold this preliminary examination. It had appointed a number of gentlemen of the very highest university standing to conduct it, and had deprived itself of any power to interfere with the discretion of these gentlemen. They therefore virtually, although not nominally, formed a university examining board. The Colleges were anxious to keep up a high standard of education. The Universities were free from certain matters which were laid down by the Education Committee, and the Colleges ought to be placed in the same position as these other bodies.

Sir JOHN MOORE seconded.

Dr. LITTLE remarked that the Council had no right to put this examination on the same footing as that of any university. He would, however, be prepared to support a motion such as Sir Arthur Chance had originally placed on the paper.

Sir CHARLES BALL said that he could support the motion originally placed on the paper. The examination was known to be a good one.

Dr. MACKAY said that the Council was being asked to do something which it possibly could not do. He would point out that a university was an integral part in the educational system of the country.

Sir C. NIXON said that the examination in question was admitted to be a good one, and the examining body seemed to be perfectly free from interference by the Conjoint Board. But the examination had nothing to do with the universities, and the universities wound resent any proposal that there should be any assimilation of their examinations with the examination of the Conjoint Board.

The PRESIDENT remarked that all that was desired by the Irish Colleges was the admission that they had established an independent Educational Board, that that Board had established a suitable standard of examination, and that that was recognised on its merits. The Council did not need to raise the question of equivalent examinations so long as the particular examination was sufficient.

Sir ARTHUR CHANCE after further debate withdrew his motion.

Regulations for the Diploma in Public Health.

The Public Health Committee submitted a final report in regard to the proposed revision of the regulations for the Diploma in Public Health, together with the comments of the qualifying bodies thereon. The committee proposed that the resolutions and rules adopted by the General Medical Council for Diplomas in Public Health should be as follows:—

I.—The Council, having regard to the terms of Section 18 of the Local Government Act (1888) and of Section 54 of the Local Government (Scotland) Act (1889), and observing that under those sections special privilege is to be accorded to the holders of the diplomas granted under Section 21 of the Medical Act (1886), and therein described as Diplomas in Sanitary Science, Public Health, or State Medicine, thinks it essential to declare, with regard to its own future action under Section 21 of the Medical Act (1886), that it will not consider diplomas to "deserve recognition in the Medical Register" unless they have been granted under such conditions of education and examination as to ensure (in the judgment of the Council) the possession of a distinctively high proficiency, scientific and practical, in all the branches of study which concern the public health; and the Council, in forming its judgment on such conditions of education and examination, will expect the following rules to have been observed:—

Rule 1. The curriculum for a Diploma in Sanitary Science, Public Health, or State Medicine shall extend over a period of not less than nine calendar months.

Rule 2. Every candidate for a Diploma in Sanitary Science, Public Health or State Medicine shall have produced satisfactory evidence that, after obtaining a registrable qualification, which should be registered before admission to examination for the diploma, he has received practical instruction in a laboratory or laboratories, British or foreign, approved by the licensing body granting the diploma in which chemistry, bacteriology, and the pathology of the diseases of animals transmissible to man are taught. The laboratory instruction shall cover a period of not less than four calendar months, and the candidate shall produce evidence that he has worked in the laboratory for at least 240 hours, of which not more than one-half shall be devoted to practical chemistry. The laboratory course should be so arranged as to lay special stress on practical work which bears most directly on the duties of a medical officer of health.

Rule 3. Every candidate shall have produced satisfactory evidence that, after obtaining a registrable qualification, he has during six months been diligently engaged in acquiring a practical knowledge of the duties, routine and special, of public health administration, under the personal supervision of (*a*) in England and Wales, the medical officer of health of a county or of a single or combined sanitary district having a population of not less than 50,000, or a medical officer of health devoting his whole time to public health work; or (*b*) in Scotland, a medical officer of health of a county or counties, or of one or more districts having a population of not less than 30,000; or (*c*) in Ireland, a medical superintendent officer of health of a district or districts having a population of not less than 30,000; or (*d*) in the British dominions outside the United Kingdom, a medical officer of health of a sanitary district having a population of not less than 30,000, who himself holds a registrable Diploma in Public Health; or (*e*) a medical officer of health who is also a teacher in the department of public health of a recognised medical school; or (*f*) a sanitary staff officer of the Royal Army Medical Corps having charge of an army corps, district, command, or division, recognised for this purpose by the General Medical Council. (*g*) An assistant medical officer of health of a county or of a single sanitary district having a population of not less than 50,000, provided the medical officer of health of the county or district in question permits the assistant officer to give the necessary instruction and to issue certificates; or (*h*) That he has himself held for a period of not less than three years an appointment as medical officer of health of a sanitary district within the British Dominions, and having a population of not less than 15,000. The certificate for this purpose must except as provided under (*h*) include testimony that the candidate has attended under the supervision of the person certifying on not less than 60 working days. Provided that if the candidate has:—(1) Produced satisfactory evidence that he has attended a course or courses of instruction in sanitary law, vital statistics, epidemiology, school hygiene, and other subjects bearing on public health administration, given by a teacher or teachers in the department of public health of a recognised medical school; or (2) produced evidence that he has been a resident medical officer in a hospital for infectious diseases containing not less than 100 beds, during a period of three months—the period during which he has been engaged in acquiring practical knowledge of his duties under this rule may be reduced to three months, to include an attendance on at least 30 working days.

Rule 4. Every candidate shall have produced evidence that, after obtaining a registrable qualification, he has attended during three months at least twice weekly the practice of a hospital for infectious diseases at which candidate has received instruction in the methods of administration. 1. Methods of administration shall include the methods of dealing with patients at their admission and discharge, as well as in the wards, and the medical superintendence of the hospital generally. 2. In the case of a medical officer of the Royal Army Medical Corps a certificate from a principal medical officer under whom he has served, stating that he has during a period of at least three months been diligently engaged in acquiring a practical knowledge of hospital administration in relation to infectious diseases, may be accepted as evidence under Rule 4.

Rule 5. The examination shall have been conducted by examiners specially qualified; it shall have extended over not less than four days, one of which shall have been devoted to practical work in a laboratory, and one to practical examination in, and reporting on, subjects which fall within the duties of a medical officer of health, including those of a school medical officer.

*** The Rules 2, 3, 4, as to study, shall not apply to medical practitioners registered, or entitled to be registered, on or before Jan. 1st, 1890.

II.—The Council shall, from time to time, appoint an inspector or inspectors of examinations in public health, with special instructions to report to the Council whether the examination of each licensing body does or does not afford evidence, on the part of candidates passing such examination, of a distinctly high proficiency, scientific and practical, in each and all of the branches of study which concern the public health.

List of the districts and commands that have been recognised by the Council under Rule 3 (*f*):—

Aldershot.
Salisbury Plain.
Southern and South-Eastern.
Western.
Dublin and Belfast.
Cork.
Chatham and Woolwich.
Home.
Eastern.
North-Eastern and North-Western.
Scottish.
Gibraltar Command.
Malta Command.

The following Indian Divisions, viz.:—
1st (Peshawar).
2nd (Rawalpindi).
3rd (Lahore).
5th (Mhow).
6th (Poona).
7th (Meerut).
8th (Lucknow).
9th (Secunderabad).
Burma.

Dr. NORMAN WALKER moved "that the resolutions and rules in their amended form be adopted." He thought that the report of the Public Health Committee was an example of the deliberate way in which medical legislation ought to be carried through. The committee had, firstly, presented draft alterations in the regulations to the Council, and the latter had given directions that these should be sent to the various licensing bodies for their criticisms and comments. The committee had considered the replies very carefully, and as the result of its considerations suggested that in Rule 1 nine months should be recognised. Now he came to the question of laboratory work, and here there was a very considerable difference of opinion. The regulations which were at present in force laid down that the candidate should have worked in a laboratory or laboratories. In its inquiries the committee asked whether this meant six calendar months; and it found that the nominal six months had been reduced in practice to five. In very few places was there made any stipulation as to hours. The proposal for a 13 weeks' course with 150 hours of practical work aroused very strong opposition. As a compromise the committee suggested that the period required should be four calendar months. It further specified that during those four calendar months 240 hours should be devoted to practical work in the laboratories. That was a very considerable stiffening of the regulations.

Dr. NEWSHOLME seconded.

Dr. KNOX said that three months was too short a time, as it would result in cramming, but he would not object to four calendar months as a sort of compromise.

Sir HENRY MORRIS stated that the English Royal Colleges had always had a public health syllabus, and it had quite recently been revised so as to bring it up to modern requirements. The report did not agree with the practice of the Colleges in the reduction of the period in Rule 2 from six months to four. The recommendation from their examiners was that there should not be any cast-iron regulation as to the division of time between chemistry and bacteriology. Examiners found candidates who were so well prepared in chemistry and so badly prepared in bacteriology that they should not be compelled to give so much time to chemistry. Candidates might come to take their course with practical knowledge of one branch. He would be prepared to move an amendment to the effect that the proportion of time to be devoted to chemistry and bacteriology should be left to the discretion of the teachers.

Sir JOHN MOORE said that as chairman of the committee he could not accept such an amendment if it were moved. It had been felt very much in the past that too much time had been devoted to chemistry and too little to bacteriology. There was no doubt about the necessity of a thorough knowledge of bacteriology. He thought that it was a very fair arrangement that not more than one-half of the time should be devoted to chemistry.

Sir WILLIAM WHITLA hoped that the rule would not be made too cast iron in character.

Dr. NEWSHOLME considered that the committee might congratulate itself that the report had been received with so much consent. During the nine months under the proposed rules the instruction and practical work were to be made of a more definite character than was the case formerly.

The motion was agreed to.

Report of the Pharmacopœia Committee.

The Pharmacopœia Committee reported to the Council in the following terms:—

From May 21st to Nov. 18th, 1911, the number of copies of the British Pharmacopœia (1898) sold by the publishers was 581. The total number of copies sold in the year beginning Nov. 19th, 1910, was 1114; this is a larger number than any recorded for several years past. Up to the present time 43,574 copies of the Pharmacopœia and 4511 copies of the Indian and Colonial Addendum have been sold. The stock of the Pharmacopœia now in hand numbers 1439 copies; it will probably suffice for the demand during the next 18 months.

The third report of the Committee of Reference in Pharmacy, with a supplement thereto, has been published, and the Pharmacopœia Committee have received a number of criticisms and comments upon its suggestions, of which note will be taken for subsequent use.

The committee have pleasure in intimating that Dr. Tirard, for many years its secretary, and Professor Greenish, secretary of the Committee of Reference in Pharmacy, have accepted appointment as editors of the new issue of the Pharmacopœia, and are now engaged in classifying the materials relating to the revision of the text which have accumulated in the committee's hands. The committee have to acknowledge the courtesy of the Council of the Pharmaceutical Society of Great Britain, who have been good enough to make arrangements which have facilitated Professor Greenish's acceptance of this appointment.

The editors have submitted for the approval of the committee an outline of the steps they propose to take for the preparation of a first draft of the revised text. These will follow the general lines adopted in connexion with the last revision. It will doubtless be necessary, as on previous occasions, to obtain expert assistance on technical questions from small Committees of Reference in Chemistry and in Botany. The appointment of such committees has been authorised by the committee.

The report was approved of.

Inspection of Qualifying Examinations in Dentistry.

A report was received from the Dental Education and Examination Committee on the inspection of the qualifying examinations in dentistry held during the year 1911. The report concluded thus:—

In reviewing the whole series of inspected examinations their general uniformity and adequacy is striking, and, except in matters of detail, little appears to require amendment. The chief point where differences of practice exist is in the final conference of examiners and in the extent to which the marks originally given are liable to subsequent modification. At the Royal College of Surgeons of Ireland alone there is absolutely no revision of marks once given. At the Royal College of Surgeons of England there is such a revision possible, but it is limited to leniency extended to such as have very nearly attained to a pass mark, whereas in the other bodies it appears, judging from the inspector's reports, to be exercised far more freely, and indeed in some cases the report reads as though the revision were extended in an undesirable degree.

It must be remembered that the mark originally given has had the concurrence of two examiners with the candidate or his paper before them, and was the expression of their deliberate judgment upon his merits. The committee are of opinion that it is not desirable to have a cast-iron rule that under no circumstances can a mark be increased, which might occasionally press hardly upon a candidate who has almost reached the required limit, but that any extension of the practise of revising marks beyond this point must tend to a lowering of the standard.

Your committee are of opinion that the clinical part of the examination in dental surgery is of great importance and should be extended so far as is practicable. And in this connexion it may be mentioned that the inspector desires to add to his report his opinion that in marking this section of the examination credit should be given to candidates for gentleness and consideration displayed in their bearing towards the patient. Your committee consider that an oral examination in surgery is a very valuable portion of the examination, and they recommend its inclusion by any of the bodies which do not at present hold it.

On the motion of Mr. TOMES, seconded by Mr. HODSDON, the report was approved.

National Insurance Bill Committee.

The PRESIDENT submitted the report of the National Insurance Bill Committee. The report detailed the communications which the committee had had with the Chancellor of the Exchequer. It set out further that at a meeting of the committee held on Nov. 29th, 1911, the Bill as amended in Committee of the House of Commons was considered. After discussion it was unanimously agreed that in pursuance of the Council's resolution of May 29th, 1911, the following representations should be made to the Government with a view of procuring further amendments of the Bill on report:—

I. That, as in the case of the Insurance Commissioners for England, it should be provided by Statute that the Insurance Commissioners for Scotland, Ireland, and Wales shall include duly qualified medical practitioners.

II. That statutory provision should be made for the appointment of Advisory Committees, including therein duly qualified medical practitioners, to assist the Insurance Commissioners in Scotland, Ireland, and Wales respectively.

III. That, in view of the large increase in the number of members who may now be appointed on Local Health Committees, it is urgently necessary that statutory provision should be made for the appointment of a larger number of medical practitioners on each such committee in each division of the Kingdom.

IV. That statutory provision should be made for the appointment of local medical committees in the other divisions of the Kingdom, including Ireland, corresponding to the provision made by Clause 58 for the appointment of such committees in England.

V. That Clause 16 (4), in so far as it entrusts the administration of "medical benefits" to existing organisations rather than to the Local Health Committee, as contemplated by Clause 16 (1), is not conducive to the efficiency of the medical service of insured persons, and should be deleted from the Bill; or at least that its application should be restricted to organisations actually in operation at the date when Clause 16 (4) was introduced into the Bill.

VI. That, notwithstanding the introduction of certain amendments relating to the treatment of insured persons in voluntary hospitals and other charitable institutions, there is ground for apprehension that the national scheme established by the Bill may operate so as seriously to impair the financial stability, and therefore the efficiency, of such hospitals and institutions; and that in view of the danger thus apprehended, steps should forthwith be taken by the Government to institute inquiries on this subject, and, if necessary, to propose legislation for the purpose of safeguarding the important interests, educational, scientific, and philanthropic, that are involved.

By request of the Chancellor, these representations were communicated to him on Nov. 30th, 1911.

The report was received and entered on the minutes.

The PRESIDENT then said: This report has been largely

the narrative of the steps that have been taken and the communications which have passed between us and the Government. Almost every stage of it has been made known to members of the Council by circulating a series of memoranda so that the Council has been able to keep pace with the successive steps in the negotiations which have taken place. The instructions given to the committee by the Council and its recommendations are set out in the report. After these are carefully considered by the Council now, I think it will be conceded that most of them appear to have been accepted. Since the committee was appointed the Bill has been before the Committee of the House of Commons and the process of transformation has not yet come to an end, and it is not quite possible for us to say whether further changes may not develop which would cause us to intervene again. For that reason I think that the committee should continue in being. A great many amendments were made in the House of Commons last night. I have not had an opportunity of seeing these amendments, and I cannot tell whether the suggestions which we made yesterday are now embodied in the Bill. In fact, it would be impossible to know whether they have been or not until we see the Bill printed as it emerges from the report stage. The newspaper reports are inadequate for the purpose of giving us the information. It will, however, be observed that two important points still remain not quite satisfactorily settled to the best of our information. One of these is the clause which continues to existing organisations the right to give medical aid and to have that medical aid recognised and subsidised as if it were medical benefit given to the Local Health Committee. Protest was made as to that, and what we are able to suggest is either that the provision should be deleted, or that if that is not done it should be limited in its scope so as to include only certain limited existing organisations which carry on *bonâ-fide* operations. The ground for introducing it before was that it was thought that certain vested rights ought to be respected. What was most desirable was that no new vested right should be made possible between this time and the passing of the Bill into law. I have reason to believe that the Chancellor fully appreciates that. He himself intends to introduce restrictions to that effect in a new clause. In the Bill as originally framed there was a grave doubt that our suggestions for the hospital treatment of insured persons were most inadequately provided for in the Bill. Practically the only recommendation as to the hospital treatment of insured persons was that the approved societies might give subscriptions or donations if they liked to hospitals. There was no indication that the Local Health Committee might make arrangements for such hospital treatment. Next, however, it was arranged that if an insured person was in hospital and had no dependents the sickness benefit went not to himself but to the Local Health Committee to be merged in the general fund. It was pointed out that the hospital was maintaining him and treating him, and it was not fair that the insurance fund should profit by his being so treated at the expense of a charitable fund. That is now met to some extent by an amendment which allows the Local Health Committee to make an arrangement by which the sickness benefit may be used to provide payment to the hospital in respect to his maintenance. Further, in the Bill as originally drafted sanatorium benefit was confined to sanatorium treatment for tuberculosis. Now it is possible for the Local Health Committee to contribute towards treatment for insured persons suffering from tuberculosis or any other disease in sanatoriums and other institutions. The Bill now makes possible that treatment otherwise than in sanatoriums or other institutions should be substituted by the Local Health Committee in respect of that disease. Notwithstanding that, your committee felt that the position of the voluntary hospitals was still in great danger, because they were still called upon in certain emergencies of acute disease to treat insured persons, without payment, except in the case where these insured persons had no dependents, and where there was a definite provision made that their treatment and maintenance should be paid out of the insurance fund. Of course there is the danger of which we are all aware, the danger of the possible diversion of the contributions of workmen and employers from the hospital to the insurance fund. The best that we could do was to point out that the danger will remain, and to ask the Government to make an inquiry as to the facts of the case and as to how the hospitals are to be affected under the new scheme, and if the inquiry proves these fears well grounded to ask that they should take legislative steps. That is the general result of our discussions yesterday on the National Insurance Bill. Under some pressure of time I had to formulate the matters on which representations had to be made to the Government with a view to procuring further amendments to the Bill on report. In conclusion, I move—

That the action of the committee be approved, and that it be requested to continue its efforts in the way of the improvement of the Bill.

Dr. MACDONALD formally seconded the motion.

The motion was agreed to without further discussion.

Conclusion of Session.

This concluded the business before the Council.

On the motion of Sir H. MORRIS, seconded by Dr. FINLAY, the President was thanked for his services in the chair during the winter sittings.

The Council then rose.

IMPERIAL UNIVERSITY CONGRESS.—Dr. Alexander Hill, formerly Master of Downing College, Cambridge, has been appointed secretary of the Imperial University Congress to be held in London in July, 1912.

HOUSING ACCOMMODATION FOR WORKERS AT THE ROSYTH NAVAL BASE.—Dr. Thomas F. Dewar, medical inspector to the Local Government Board for Scotland, and Mr. John Wilson, architectural inspector to the Local Government Board for Scotland, have jointly issued a report in the form of a Parliamentary white paper upon the house accommodation available for workers employed at Rosyth and upon the provision for sickness and accident. Exclusive of the engineering, clerical, and other members of the contractor's staff (about 100 in all), 1800 men were engaged on the works in May of this year, with a probability of more being employed as the work progressed. 34 per cent. of the workers are married, 57 per cent. single, and 9 per cent. boys. Although, perhaps, the housing accommodation is not all that could be desired, it is pointed out that except in a few cases overcrowding does not exist to an extent which would justify prosecution, though the reporters state that they have ample and abundant evidence of overcrowding in a minor degree. They also state that should an outbreak of small-pox occur there is no reason to anticipate that the measures already taken to provide for such a contingency would be inadequate or unsuccessful in cutting short an outbreak. Provision has also been made for accidents. The cost of medical attendance in cases of sickness among the workmen is met by a levy of 2*d.* a week on all employees. The report is published at His Majesty's Stationery Office at the price of 3*d.*

METROPOLITAN HOSPITAL SUNDAY FUND.—At a meeting of the council of the Metropolitan Hospital Sunday Fund, which was presided over by Archdeacon Sinclair and held in the London Mansion House on Nov. 30th, the secretary announced that Sir Ernest Tritton had been elected chairman of the Finance Committee. On the motion of Sir Ernest Tritton it was again decided to give to Sir Edmund Hay Currie an honorarium of £100 to enable him to take a much-needed holiday in the South of France. Archdeacon Sinclair moved the acceptance of the annual report, which stated that the receipts for the year amounted to £67,015. The church contributions—namely, £37,061—were £3717 less than in 1910. A sum of £8000 had been received from the executors of the late Mr. George Herring. Mr. William Herring had given a donation of £1000. Lord Cheylesmore seconded, and the report, which will be submitted to the annual meeting of the constituents of the Fund on Dec. 21st for adoption, was approved. Mr. Sydney Holland stated that in deference to certain expressed wishes he had decided not to continue the Sunday cinematograph exhibitions, notwithstanding the fact that his hospital would thereby suffer to the extent of £1200 a year. Sir Ernest Tritton called attention to the date of Hospital Sunday. He thought that the collection should be made earlier in the year than June. On the suggestion of Sir Henry Burdett it was decided to refer the matter to the executive committee for report. Hospital Sunday next year will be held on June 9th unless any different date is announced.

THE LANCET.

LONDON: SATURDAY, DECEMBER 9, 1911.

The National Insurance Bill.

DURING the past week the general opposition to the National Insurance Bill has not grown less in the medical profession. Numerous correspondents of our own, as well as published statements elsewhere, show that this hostility, although of the most varied kind, has one common origin—the feeling that the principles rather than the details of medical practice have received no proper respect. It is true that throughout the Committee stage of the Bill many other of the interests affected were found not to have been consulted or considered, and in consequence the Chancellor of the Exchequer showed himself willing to amend clause after clause in various directions. But in dealing with a highly organised profession like that of medicine, where the organisation consists largely in a differentiation of duties among men with common ideals, it must be a highly dangerous proceeding to try to force upon a substantial proportion of them a scheme which may profoundly modify their lives and livelihoods without an anxious and well-informed examination of all the facts drawn from unassailable sources. We have protested against the passage of the Bill, as it stood and as it stands, because it will turn the medical profession upside down without in any way securing a proportionate benefit to medicine or to the public. It is not beyond human ingenuity to devise a scheme to which, while the nation was enjoying the advantages of a National Insurance measure, the medical profession could heartily subscribe. But such a scheme should be inspired in its origin with real knowledge. The multiplicity of amendments in the section of the Bill dealing with medical benefits shows sufficiently that the National Insurance Bill was faulty in its inception, though it also testifies to the willingness of the Chancellor of the Exchequer to meet his critics in amity if not in substance.

The acceptance by Mr. J. SMITH WHITAKER, with the approval of the Council of the British Medical Association, of the post of Deputy Chairman of the Board of Commissioners to be constituted under the Act, must be regarded as a policy of compromise on the part of the Association, whose position will be puzzling to all of its ordinary members, and mortifying in the extreme to some of them. The governing body of the Association has throughout advocated making the best of the Bill, and has resisted the proposal that the medical profession, finding the scheme unworkable, should have nothing further to do with it. The line of compromise taken has not been in response to any general mandate of the members, but rather to the feeling of the Council that a policy of making good terms under the Bill was supported by a majority, either in number or weight, among the constituencies. Throughout the summer, therefore, negotiations have been taking place between the Association and the Chancellor of the Exchequer, the field of debate being presumably the six cardinal points on the granting of which depended the adherence of the Association to the Bill. At the meeting of the Representative Body of the Association held on Nov. 23rd and 24th in London, not without many dissentients however, the Representatives decided to take the advice of a report to them from the Council, and to continue through the Association a conditional support of the Bill, although the six cardinal points had not been granted. At the same time the determination to insist upon these points was re-affirmed by what was termed a "Declaration with regard to Future Action as to the Cardinal Principles," the resolution in question being to the effect that the British Medical Association would use every possible means to ensure that no medical practitioner should undertake the attendance and treatment of persons insured under the Bill save in accordance with the six cardinal principles. The situation, therefore, does not differ now much from what it was six months ago, save in the important fact that the medical secretary of the Association, with the approval of the Council, has been placed in a high position on the small and supreme body of Commissioners to whom will fall the administration of the Bill.

Mr. SMITH WHITAKER has proved himself to be an indefatigable worker and an accomplished advocate of the policy of the Association, and his knowledge of the medical side of the Insurance Bill in all its permutations and combinations is probably unrivalled. To a large extent he has been the mouthpiece of the Association during the past six or seven eventful months. His transference, therefore, from the position of chief advocate of a policy of resistance to the Bill until certain concessions are made, to the position of Deputy Chairman of the Commissioners is startling. In his new position his freedom of speech and of action are necessarily curtailed. Hitherto he has spoken for the large section of the Association whose opinions have coincided with those of their leaders; henceforward he will be one of a small group of judicial officers whose business it will be to secure the smooth working of the Act and to dispense even justice between the most conflicting interests. That he will do his utmost to uphold the policy which he has already expounded with such zeal and ability may be taken for granted. He knows the arguments for that particular course and the general justice of the medical protests; but will he have power to enforce his views? The motives of the Council in approving his appointment have been excellent; but while reflections upon the integrity of the Council are ridiculous those upon their judgment have force. They have endorsed, by sanctioning Mr. SMITH WHITAKER'S new position, the working, not the principles, of a measure dangerous to the medical profession, one whose influence has not been gauged and whose promise is full of ill omen.

The General Medical Council and the Sandow Curative Institute.

THE proceedings taken by the British Medical Association before the General Medical Council with regard to the conduct of three medical practitioners in associating themselves in their professional capacity with the "Sandow Curative Institute" have reached a further, but not a final, stage at the recent session of the Council. The name of one of the three gentlemen referred to, Mr. M. E. A. WALLIS, was at the session of last May removed from the Medical Register. Another, Mr. C. E. TRIMBLE, in whose case judgment was postponed in May to allow him to reconsider his position, has now produced evidence to show that he is practising his profession in Wales, having entirely severed his connexion with the Sandow Institute, and with regard to him all proceedings are consequently at an end. The third practitioner affected, Mr. J. R. WALLACE, had the same opportunity afforded to him as Mr. TRIMBLE, but took a different course. He remained associated with the Sandow Institute, and before the Council at its recent session this was frankly admitted on his behalf by Lord ROBERT CECIL, K.C., who stated that the institute had discontinued advertising for the purpose of procuring patients or with the promise to cure disease, that Mr. WALLACE had now absolute control and direction of the institute, and that he accepted full responsibility for everything done in it. This was borne out by the personal evidence of Mr. WALLACE, who stated that he saw all patients and prescribed the treatment to be pursued, being entirely responsible for that treatment. He also said that Mr. SANDOW still saw cases occasionally but undertook no responsibility with regard to their treatment, and that the new arrangement thus described constituted a complete change from that which had prevailed before. This being clearly an effort made by Mr. WALLACE and the Sandow Institute to bring the practice of the former within lines consistent with the well-known principles of medical ethics the Council accepted it as such, so far as the information made that possible. That is to say, the Council again adjourned the case of Mr. WALLACE until the next session in order that he might then produce more satisfactory evidence regarding his professional conduct, such evidence, as was suggested, to be that of medical practitioners. This we interpret to mean that in the opinion of the Council the association of Mr. WALLACE with the Sandow Institute might in the working prove blameless, but that only from observation of the actual practice that might follow professions of amendment could it be ascertained whether the features which rendered the Sandow Curative Institute objectionable had finally disappeared.

At this stage the matter might have rested for another six months, and, strictly speaking, it does so rest, so far as the consideration to be afforded to it by the General Medical Council is concerned. From announcements made through the medium of the daily press by Mr. EUGEN SANDOW, however, and from a letter addressed by Mr. WALLACE to the Registrar of the General Medical Council, we gather that the more recent conditions described by Mr. WALLACE in his evidence—upon which Lord ROBERT CECIL relied in addressing the Council as constituting, according to his case, a course of conduct beyond reproach—are not to be maintained. The statement referred to as made by Mr. SANDOW was published in the newspapers of Dec. 1st, where it may be read. It describes the decision of the Council as a refusal of "plain justice," and as suspending the sword of the Council's displeasure above Mr. WALLACE'S head for a further period of six months, and it concludes as follows: "As apparently there is no means of satisfying that autocratic body, the General Medical Council, and I fail to see any reason whatsoever why the British public should be deprived of the benefit of my medicineless treatment, to which so many thousands have testified, I intend to leave the final judgment of the rights and wrongs of this mysterious offence against an obscure and unreasonable tradition to be decided by the British sense of justice and fair-play, and from now onwards shall place my Curative Institute at St. James's-street at the disposal of every sufferer by making known, through the medium of the Press, that such an institute exists." Mr. WALLACE, in his letter to the General Medical Council, protests generally against the course adopted by the authoritative body of the profession, and in particular against what he alleges to be an ignoring of evidence of similar practices in connexion with other institutions employing medical men. He writes: "I desire to state now, rather than wait until the expiration of six months hence, that I intend to continue my work. If the General Medical Council consider that they are entitled to resolve that this constitutes 'infamous conduct in a professional respect' on my part, then I leave them to direct the removal of my name from the Medical Register; but I reserve my right to question their decision, and I trust they will take an early opportunity of passing some resolution, so as to enable me to do this without unnecessary delay." We gather from this that when the case of Mr. WALLACE comes again before the General Medical Council there will necessarily be evidence of a fresh course of conduct differing from that described at the session recently concluded, and again from that which prevailed before last May, and that any decision come to which is adverse to Mr. WALLACE will be called in question, so far as this may be possible, in the High Court of Justice. In these circumstances we have referred above to the present stage of the proceedings as not being final, and we almost necessarily refrain from commenting upon the position taken up by Mr. WALLACE and Mr. SANDOW.

We may, however, remind our readers of a few of the facts not in dispute which were before the General Medical Council last May, and upon which its decisions were then passed with regard equally to all the three medical men implicated. With the side of the business of Sandow, Limited, which is connected with the promotion of muscular development and the increase of physical efficiency in those who present themselves as clients of a noted "strong man," the medical profession is not immediately concerned. Mr. SANDOW has cultivated an extraordinary muscular development in himself, and if others try to emulate him by seeking instruction from him, his position with regard to

his clients and pupils is not greatly different from that of the professional athlete who trains amateurs for rowing, boxing, running, or other branches of athletics. The case which was brought before the General Medical Council as to the connexion with the institute of three registered medical men had nothing to do with such an aspect of Mr. SANDOW'S business. In addition to giving instruction in dumb-bell exercises and other methods of increasing muscular power, and as a later development, Sandow, Limited, has sought to derive profits from a branch of its business described as the "Sandow Curative Institute," and from what it has described in advertisements as "curative physical culture." As evidence of this claim to be curative—that is to say, to treat and to heal disease—one of the pamphlets or advertising leaflets issued by the institute and laid before the General Medical Council recommended all sufferers from the complaints mentioned in it to place themselves unreservedly in the advertisers' hands, the complaints mentioned including "acute bronchitis." It was stated as a matter of history, and was not disputed, that the practice of the institute had been at one time to send prospective subjects to private medical practitioners for examination in order to ascertain whether any physical weakness rendered the treatment proposed for them inadvisable, but that as a matter of greater convenience the medical men before the Council had been engaged as officers of the institute to make such examinations as indicated above upon its premises, but that their employment was not for the purpose of prescribing physical exercises or any other form of treatment for those consulting them. It was not disputed by the three gentlemen whose conduct was under review that sundry advertisements issued by the institute had appeared to them to be objectionable. On the other hand, it was not suggested by those who laid the facts before the General Medical Council that the position and conduct of the three medical men complained of had not been frankly and accurately described by them at the inquiry and before it, or that they had originally intended to transgress the rules of conduct which should be observed by members of their profession, or that the statement made by Mr. WALLIS was untrue when he said that during his service as medical officer of the institute a great many medical practitioners had visited it and had brought their patients there to undergo treatment. Upon the facts which we have briefly summarised above were based the propositions advanced before the Council by Mr. SMITH WHITAKER on behalf of the British Medical Association that (1) the Sandow Institute undertook the treatment of disease; (2) that the gentlemen proceeded against were employed by the institute in their professional capacity and were aiding and abetting in the carrying out of the treatment of disease by the institute; (3) that the institute had recourse to an extensive system of advertising for the purpose of attracting patients; and (4) that the treatment of those patients at the institute was entirely prescribed by Mr. SANDOW, an unqualified person.

We believe that we have correctly stated above enough to show exactly what the issues have been which the General Medical Council up to now has had to consider and decide, and as to which members of the medical profession will form their own opinions. Mr. SANDOW and Mr. WALLACE have submitted them to the public, a tribunal not always unprejudiced and not entirely competent to appreciate the principles upon which decisions of the General Medical Council upon matters of professional conduct are based. Both have also intimated that before the case of Mr. WALLACE comes again before the General Medical Council a different practice will have been in use, as to which, presumably, there will be no secret, and as to which evidence will, if desired, be forthcoming. Mr. WALLACE has added to this the information that he desires without delay to test the legality of the Council's attitude towards the Sandow Curative Institute and himself. If by an appeal to judicial authority upon a point or points of law a question directly affecting the ethical standards of the medical profession, and of no small importance to the public, can be finally determined, we feel sure that none will welcome the occasion more than the profession at large or the Council, which Mr. SANDOW denounces as autocratic, and which Mr. WALLACE accuses of ignoring evidence tendered on his behalf.

Annotations.

"Ne quid nimis."

DREAMS.[1]

SOMEONE has said that a Philistine family can be defined as one of which all the members tell each other their dreams when they meet at the breakfast table. Yet the subject of dreams has from time immemorial exercised a fascination over the intellectual and the illiterate alike, although the attitude of mind in which it is approached may vary enormously. Some will see in the tragic poignancy of a dream a revelation, from an ultra-mundane source, of things to come, while others will attribute similar phenomena to unusual visceral activity consequent on an injudicious meal. The late Sir Samuel Wilks, Mr. Ellis reminds us, once made the acute remark that "the dreamer merely forms a mental picture, and the description of it he calls his dream." It is in the process of describing dreams that expansions are liable to occur, that dream incidents are prone to be altered in accordance with conscious memories, that coloured interpretations of the dream reality are apt to vitiate its simplicity. For years Mr. Ellis has made it a practice to write down in the morning the plain unvarnished data of his dreams and to adopt the introspective method of dealing with these data. He has therefore been able to satisfy himself that the facts as given in the volume before us are reasonably accurate, and has confined his discussion to what may be called the problems of normal dreaming. The reader will find that Mr. Ellis's dream experiences are very like his own, though curiously enough there appears to be no reference to the "inadequately clothed" dream with which most are familiar. Many of the phenomena receive at Mr. Ellis's hands ample explanation on perfectly simple grounds, to the achievement of which his psychological knowledge and scientific spirit alike contribute. The symbolism of dreams is duly exemplified, and although the author is ready to admire the profound and daring interpretations of dream symbolism furnished by Professor Freud, he is unable to follow him into the devious and puzzling maze of wish-fulfilment.

[1] The World of Dreams. By H. Havelock Ellis. London: Constable and Co. 1911. Pp. 288. Price 7s. 6d. net.

It seems clear that the phenomena of dreams are well worth studying for the light they cast on certain pathological processes of a non-organic sort. In dreams the illusion of false recollection, the sensation of "déjà vu," is fairly common, especially in the hypnagogic state, as it is in waking life. Mr. Ellis offers a theory to account for it which is deserving of serious consideration, but perhaps he does not fully appreciate the extent to which the phenomenon occurs in association with certain idiopathic epilepsies, organic lesions of the uncinate gyrus, and other diseases of "functional" type. In the aura of certain epileptiform seizures it not infrequently happens that surrounding objects lose their "familiarity" or "reality," and that this familiarity or reality is transferred, as it were, to the place and circumstances in which the patient, not yet fully unconscious, imagines himself to be. Hence these seem so familiar that he experiences a keen sensation of "having been there before"—in other words, he has an illusion of "fausse reconnaissance." Many neurasthenic patients complain of the "unreality" of their surroundings, as hysterical patients do of parts of their own body, and it may be that "reality" is an attribute that is detachable. The sense of impending trouble, the fear of impending death, of which Mr. Ellis supplies illustrations from the dream world, is a common accompaniment of vaso-vagal attacks—the "affolement bulbaire" of French writers; and it may be questioned whether one of his examples is not drawn from an ordinary case of so-called cardiac neurasthenia. The tendency to magnification that is often well marked in dreams is paralleled by the disturbances of cœnæsthesia, of which many instances have been recorded. A patient in the throes of a vaso-vagal attack imagined that her head had shrunk to a minute size, while her limbs were giant limbs moving through an enormous range. If such phenomena occur in association with definite functional disturbance of medullary centres, there is no obvious reason why some such explanation should not hold good for analogous experiences when the cortex is asleep. One or two of Mr. Ellis's statements are open to some minor criticism. The sensory aphasic does not always think his nonsense is quite clear and reasonable. On the contrary, his distress at being unable to express himself clearly is sometimes striking. Liepmann was the originator of the modern conception of motor apraxia, not Pick; in Liepmann's ideational apraxia (identical with Pick's ideomotor apraxia) plans are defective, not because they are "not supervised by the higher centres," but because these higher centres themselves are not functioning normally. This book is a charming contribution to the literature of dreams. All who are interested in "the stuff that dreams are made of" will read it with relish and profit.

THE RELATION OF EPILEPSY TO LEFT-HANDEDNESS.

IN the August number of the *Monatsschrift für Psychiatrie und Neurologie* is a communication from Dr. G. Steiner, based on material obtained in the Psychiatric and Nerve Clinic in Strasburg, relating to certain associations between idiopathic epilepsy and left-handedness. The article contains statements which, if corroborated by subsequent investigation, may turn out to be somewhat far-reaching in their effect. The student of epilepsy is aware of two definite tendencies in the prosecution of the subject under modern conditions of knowledge: there is first the tendency to widen the borders of the disease, and to include therein such phenomena as faints, vagal attacks, migraine, vertigo, narcolepsy, night terrors, &c., and, on the other hand, there is the tendency rigorously to exclude certain morbid conditions which occasionally reveal themselves by episodic phenomena in the form of epileptiform convulsions. Unverricht's myoclonus-epilepsy, psychasthenic convulsive attacks, the epilepsy of infantile cerebral lesions, ought to be considered as distinct from true epilepsy. In this connexion it is desirable to abandon such terms as arterio-sclerotic or alcoholic epilepsy, and to employ the more correct expressions epileptiform arterio-sclerosis and epileptiform alcoholism. Desirous of studying more closely the distinguishing feature of genuine cases of idiopathic epilepsy Dr. Steiner, whose work is based on some little-known investigations of Lombroso, Tonini, and Redlich, has been led to the conclusion that left-handedness occurs with great frequency in the families of such cases. Lombroso was the first to note this apparent frequency in epileptics themselves: of 176 cases 10 per cent. were left-handed. Tonini found the phenomenon in no less than 40 per cent. of his cases. Redlich noted 22 left-handed patients out of 125 epileptics—that is to say, 17·2 per cent. Dr. Steiner, however, seems to be the first to point out that in the families of right-handed epileptic patients left-handedness often occurs in normal individuals. His figures are based on 57 cases of pure idiopathic epilepsy in which the patients themselves and their families were subjected to careful examination from this special point of view. In 40 cases left-handedness was noted in the family; 11 cases were themselves left-handed. Left-handedness in the family with right-handedness of the patients was noted in 70 per cent. of cases; left-handedness of the patients with right-handedness only in the families, in 15½ per cent.; left-handedness in the patients and also in the families in 3½ per cent.—a total of no less than 89·5 per cent. of cases in which left-handedness occurred in the patient or his family. Such figures are sufficiently striking. When it is remembered that the average percentage of left-handed individuals in the community at large is only about from 2 to 5, the data furnished by Dr. Steiner are indeed remarkable. The interpretation of their import is not easy. It is, of course, too large a percentage to be regarded merely as an accident. On the other hand, complacently to characterise this left-handedness as one more of the stigmata of degeneration so common among epileptics is scarcely justifiable. Notwithstanding the contention of some that stammering is more frequent among left-handed people, and the opinion of Havelock Ellis and others that left-handedness is commoner in degenerates than in normal individuals, it cannot seriously be held that left-handedness is of itself a sign of degeneracy. A consideration of the degrees of left-handedness, and of the place it takes in the history of the race and the child, precludes such a view. Dr. Steiner has a hypothesis to account for the apparent predominance of the condition in his epileptics, and more particularly their families—viz., the existence of an inherited tendency to a pathological disturbance of the normal cerebral mechanism, whereby for all practical purposes the left hemisphere leads the right. In normal left-handed individuals certain parts of the right hemisphere lead the left. In epilepsy there is a conflict between this inherited tendency to left-handedness and a congenital disposition to right-handedness.

LOCALISED CONFLUENT VARICELLA.

THE eruption of varicella is usually generalised and non-confluent. In the *Gazette Médicale de Paris* of August 2nd M. Chatin and M. R. Rendu have reported a rare case in which a localised confluent eruption occurred. A child was taken to hospital with an eruption dating from the previous evening. On first sight it seemed to be a patch of eczema covering the whole of the front of the chest and showing a well-marked border. On the back was a similar patch but with the eruptive elements less close together. This localisation suggested the application of some irritant. Indeed, the

patch on the chest recalled the confluent miliary eruption produced by the application of croton oil. But the mother denied that any application had been made. On further examination the typical disseminated vesicles and pustules of varicella were found between the two patches. Similar but less typical lesions, with their characters altered by confluence, could be observed in the patches mentioned. There were also some well-marked discrete lesions of varicella on the face and limbs. What was the cause of confluence of the lesions on the chest and back? It was noticed that in the position of the patches the skin had a slightly yellowish tint. On pressing the mother she admitted that she had applied tincture of iodine there three weeks previously. Evidently this was the cause of the localisation and confluence of the eruption. Analogous facts have been recorded, not only in the case of varicella, but also in variola and generalised vaccinia. In a work on variola, published in 1870, J. Rendu described greater confluence of the eruption on irritated surfaces, particularly on those produced by blistering. Curschmann attempted to localise the eruption of varicella on the limbs by the application of tincture of iodine in the hope of diminishing its intensity on the face, but without success. M. Chatin and M. Rendu refer to the case of an infant who had chronic eczema localised on the chest, back, and upper limbs. The eruption of generalised vaccinia appeared only on the eczematous surface and was so aggregated that it resembled confluent variola. With regard to varicella, Henoch has reported a case in which the eruption was more profuse on the side on which a child always lay. The eruption of varicella has been observed to be more abundant on the surface of an abscess. Galliard has reported a case very similar to that narrated above. A little boy's back was painted with tincture of iodine at the time when the eruption of varicella appeared. The region painted was the seat of multiple miliary vesicles and of numerous vesicles remarkable for their large size, while on other parts the eruption was discrete.

POLIOMYELITIS AND PUBLIC BATHING.

Dr. F. W. Alexander, medical officer of health of Poplar, has sent in an interesting communication arising out of a paper recently read by Dr. F. E. Batten before the Metropolitan Branch of the Society of Medical Officers of Health on Oct. 27th upon "Acute Epidemic Poliomyelitis."[1] Dr. Batten said that "in the Massachusetts epidemic careful inquiry was made into 150 of the 923 cases which occurred in the year 1909," and that "the result of these investigations do not bring into prominence any common factor. It is, however, noteworthy that of the 150 cases 62 were swimming or wading in water more or less contaminated by sewage before the attack." These remarks particularly appeal to Dr. Alexander in view of the remedial methods of bathing water purification in which for some considerable time he has interested himself at Poplar. "In September, 1909," says Dr. Alexander, "in two somewhat lengthy reports, and in my annual report for the year 1909, I pointed out to the baths and washhouses committee of the Poplar Borough Council the horrible dangers of public swimming baths, *inter alia* mentioning how quickly swimming-bath water changes its pristine sweetness even after being used only by a few bathers, particularly so in warm weather, and becomes after use by a number of bathers nothing more or less than diluted sewage, and this condition exists often before the first day's use is finished. The formation of slime in the bath water was also mentioned and commented upon at length. Mr. Pearce, medical officer of health of Batley, in an article contributed to THE LANCET showed that there is manifest danger of infection through the use of polluted bath water." Dr. Batten in his paper stated "that during the last decade acute epidemic poliomyelitis has become widespread in acute epidemic form throughout Northern Europe and America." He also states: "In the Northern Hemisphere the disease always has the greatest prevalence during the months of July, August, and September ..... poliomyelitis is prevalent during the summer months in London, and especially during August and September ..... that poliomyelitis is communicated from person to person probably by means of secretion from the nose and mouth," and that "it may be said that the virus of poliomyelitis has not yet been seen under the microscope and has not yet been cultivated." He also states that the disease has an incubation period of probably less than six days in man, although experimentally the incubation is between 8–12 days, and that there are striking instances where a school has been shown to be the centre for the spread of infection. Dr. Alexander accordingly contends as follows: "As it is during the months of July, August, and September that swimming-baths are mostly used, it has occurred to me that it would be of considerable interest to bacteriologists to take into consideration the possible connexion of polluted swimming-bath water, more especially the slime which forms at the bottoms of the baths, and the disease and possible determination of one of the causes of poliomyelitis, and to find out if such slime plays any part in the cause of poliomyelitis, and at the risk of telling plain truths to see also if lice (which have been found in the towels after use and in the dressing-boxes) take any part." He explains that he cannot produce a specimen of the slime from the Poplar swimming-baths, as those baths are kept free of it by the addition of electrolytic fluid manufactured by the borough council and added in the proportion of 1 part of chlorine to 2,000,000 parts of the bath water. But commenting on Dr. Batten's statement that the virus of poliomyelitis is a living organism which would pass the finest porcelain filter, he adds, quoting from his annual report for the year 1909: "Where filtration and aeration are carried out in public baths it is noticed the filters become covered with distinctly offensive slime occasioning much and continued cleansing of the filters; and then, again, unless the bath is entirely emptied and cleansed slime still remains at the bottom. In any inquiry into the possible cause of an outbreak of poliomyelitis or polioencephalitis it would be of public interest to find out if patients had frequented a swimming bath within a specified period of the first appearance of the disease, as there must be many swimming baths and outdoor public bathing lakes and ponds, &c., where no precautions for keeping the water pure are adopted." Dr. Alexander certainly brings an interesting point to the attention of sanitarians.

[1] The paper read by Dr. F. E. Batten is published in "Public Health" for November, 1911.

THE USE OF SALVARSAN IN MENTAL DISEASES.

Dr. R. Dods Brown, senior assistant physician to the Royal Edinburgh Asylum, describes, in the *Review of Neurology and Psychiatry* for November, his experiences with salvarsan in 17 cases of mental disease of a syphilitic, parasyphilitic, and non-syphilitic nature. The exact record is as follows: one case of insanity from cerebral syphilis, five cases of general paralysis, five of dementia præcox, two of delirious insanity, two of chronic delusional insanity, and one each of acute melancholia and acute mania. Remarkable improvement took place in the first of this series, a man aged 41 who had contracted syphilis 11 years previously, and presented when under observation

definite nervous and mental symptoms of intracranial syphilitic disease. Intravenous injection of 0·2 gramme was followed in 17 days by a further dose of 0·1 gramme. After the first injection the lymphocytic content of the cerebro-spinal fluid fell from 30 to 7·6 per cubic millimetre. Three of the cases of general paralysis were treated intravenously, and two intramuscularly. In all five cases the blood pressure rose after the injection, and there was in addition a relative leucocytosis in the blood. Clinically, no definitely favourable results were obtained in these cases, although in three some improvement was noted, but whether this is to be attributed to the special treatment is doubtful. It is noteworthy that the use of salvarsan in these general paralytic cases made no difference to the Wassermann reaction, which remained positive in the blood and cerebro-spinal fluid, yet a great reduction in the lymphocytic content of the latter took place in several of the cases, in one instance falling from 40 to 7·6 per cubic millimetre. The proteids remained unchanged. The results in the dementia præcox cases were practically negative, except that "in two cases the patients have become more accessible and responsive than they were before." In the other six cases where salvarsan was administered empirically no unequivocal results followed; it is true the two cases of delirious insanity apparently improved. One of the patients suffered from acute recurrent mania, and after receiving the injection she passed through two attacks, both of which were shorter and less severe than any during the previous two years. There was a very marked decrease in the amount of urine excreted in two cases. In one of these it fell from an average of 44 ounces to 16 ounces for four days. Speaking generally, the syphilitic cases gave a more pronounced temperature reaction and a more definite increase in leucocytes after the injection than the others, but the cases which reacted most did not show the best results. The value of the drug in mental disease is still problematical. Recoveries such as can be obtained in syphilis cannot be recorded; Dr. Dods Brown, however, considers that in the majority of his cases the physical health benefited materially.

BILIARY COLIC AND CARDIAC MURMURS.

VARIOUS physicians have drawn attention to the fact that cardiac disease and cholelithiasis are prone to coincide in the same patient, but it has not been possible to prove anything beyond a coincidence or to define an etiological relationship between the two lesions. Various theoretical suggestions have been advanced; some have considered that the cardiac lesions are endocardial and depend upon infective agents introduced to the circulation through the biliary tract, while others have regarded the condition as a myocardial one caused by infection or intoxication from the gall-bladder. Among the latter group of observers is Dr. David Riesman, of Philadelphia, who has written a short note to the *American Journal of the Medical Sciences* for November, 1911, stating that in 56 cases of gall-stone disease seen in his private practice 6, or 10·7 per cent., showed cardiac murmurs. In five of these the diagnosis of cholelithiasis was completely established by operation or otherwise. He thinks that if all patients with biliary colic were examined during or soon after the attack a higher percentage of murmurs would be registered. The murmur heard is that of mitral regurgitation; it is usually associated with some cardiac dilatation and disappears when the attack is over or after an operation if one is undertaken. He describes the case of a woman whose paroxysms of colic left her not merely with a bruit but with a liability to attacks of cardiac dilatation with dyspnœa and cyanosis; these symptoms and signs disappeared after an operation in which a stone was removed from the common bile-duct. Riesman suggests that the relationship is a direct one; the gall-bladder is the seat of an infection whose toxins injure the myocardium, while the rise of blood pressure which occurs during attacks of biliary colic dilates the left ventricle and induces a temporary insufficiency of the mitral valve. The moral is that the presence of a cardiac murmur furnishes no contra-indication to operation for the cure of cholelithiasis, but rather the reverse.

NOVEMBER AT HOME AND ABROAD.

NOT the least of the items that can be placed to the credit of November of this year is its freedom from fogs. Not once did London experience serious inconvenience, and rarely was the atmosphere so thick as to justify the term moderate or light fog. Another good point was its rainfall. Much rain was needed in these islands to compensate for the enormous shortage left by the droughty summer, and the heavy and frequent rains of November have done much to make up the deficiency. In the metropolitan district the amount of rain was about three-quarters of an inch in excess of the average for November, and varied little in the different localities. At Kew, and also at Hampstead and Greenwich, the total was 3·4 in., and at Westminster 3·1 in. Over a very large portion of the kingdom the excess on the average was much more pronounced, especially in the county of Kent. But although the weather was decidedly wet and unsettled it was also sunny for the time of year. Very little is expected in the matter of sunshine in November even on the south coast, and still less in London. The total number of hours over the country generally was, however, above the normal. In the suburbs of London the sun shone brightly for an aggregate of about 55 hours. Nearer the centre the figure decreased to 39 hours at Westminster, while in the City it only amounted to 28 hours. The figure at Westminster exceeded the average by 44 per cent. and that in the City by 27 per cent. The temperature of the month differed little from that of the average November in the British Isles, sometimes being some way above it and at other times below it. In the metropolis the warmest afternoons were at Westminster and the more central districts, where the shaded thermometer rose to 50° or above on 18 days, and the mean of the maximum readings was 51°. At both Kew and Greenwich the corresponding mean was 49° and at Hampstead not higher than 47°. The mean daily range of temperature was less at Hampstead than elsewhere, the figure being 8° at the northern suburb, 9° at Westminster, and 10° at Kew and Greenwich. Not one severe frost occurred in any part of the metropolitan area. At Hampstead the sheltered thermometer descended to 32° or below on no more than four nights, and the same figure was recorded at Greenwich, while at Kew and Westminster the respective figures were 3 and 2. The general wind current was from between south and west and its average strength rather high. Only one spell of wind between east and north occurred, the period being from the 20th to 26th. The weather on the continent underwent considerable fluctuations, but the southern regions were generally much warmer and finer than the most southern parts of these islands. At Paris, however, the climate was very little superior to that in London. Rain fell on 14 days and yielded a total of 2·07 in., and as many as 13 days were sunless. Altogether the sun shone brightly for 59½ hours, a figure very little higher than that in the suburbs of London. Its temperature considered as a whole was slightly colder than London, although on a few days it was warmer. On only 15 afternoons did the shaded thermometer ascend to 50° or above. On the Riviera the temperature was about 10° higher than at Paris and in London, the sheltered thermometer recording 60° or above on 15 days, and the average night being warmer. There

were several spells of cloudy skies, but rain was not so frequent as it often is during November, and rarely very prolonged or heavy. The most rainy periods were on the 8th and 9th, and towards the end of the month. The wind was strong occasionally in exposed situations, but as a rule there was nothing stronger than a gentle breeze. At Biarritz the weather was somewhat more variable and also a little cooler. The thermometer rose to 60° or above on only 12 afternoons, while on several occasions it failed to rise much beyond 50°. Except when rainy, however, the sky was very rarely overcast. As is usually the case at Biarritz when the weather is stormy on the Atlantic and in this country, the wind was frequently very strong from the westward and the sea high. Italy differed little from the Riviera, except that its temperature in the inland districts of the north was much lower and that of the more southern regions higher. The Mediterranean islands and the coast of Algeria experienced a temperature about equal to that of early June in the south of England. The sheltered thermometer rose to 70° or above on several afternoons, and generally to above 65°, while under the influence of the sirocco about the middle of the month it went to 80°. Rain was not frequent for November, but strong winds from various quarters were often experienced, sometimes locally, and sometimes over a very wide area.

TUBERCULIN IN PULMONARY TUBERCULOSIS.

THE recent puffing of tuberculin as an infallible remedy for practically every form of pulmonary tuberculosis is as great a danger to the good name of this valuable remedy as was its reckless dosage in the early days of its existence. A sober analysis of the results obtained by this treatment is therefore most welcome at this stage, and Dr. O. Helm's report in a Danish medical journal, *Hospitalstidende*, on his experience of about 300 phthisical patients treated over a period of five years, is a valuable contribution to the subject. In the period 1906–07, 63 patients were treated with old tuberculin in addition to sanatorium treatment. Very early cases, in which the diagnosis of phthisis might be challenged, as well as very advanced cases were excluded. Götsch's method of administration was adopted, the initial dosage being 1/10 mgr. The treatment was soon given up in 18 patients who reacted unsatisfactorily with increased dosage of tuberculin. As a matter of fact, it is hardly fair to exclude these 18 from the analysis of the results three years later. But with this exception the writer seems to have put the case for and against tuberculin very fairly. Most of the patients exhibited reactions which were, however, seldom excessive. After a lapse of three years the result of the treatment on the remaining 45 was as follows: 84·4 per cent. were "cured," the disease was active in 6·6 per cent., and 9 per cent. were dead. This satisfactory result was, however, partly due to sanatorium treatment, and for this reason, as well as on account of the small number of patients treated, no definite conclusion can be drawn, though in certain individual cases the writer was impressed with the efficiency of the treatment. Encouraged by the favourable reports of new tuberculin (bacillary emulsion) as compared with old tuberculin, the writer gave it subcutaneously to 53 patients, in all of whom the diagnosis of phthisis was certain. Nine patients discontinued the treatment for various reasons. Of the remaining 44, 16 were in Stage I., 20 in Stage II., and 8 in Stage III. of the disease. No very severe or apparently hopeless case was included. None of the patients were febrile, the general condition was invariably good, and there was no case complicated by cardiac or renal disease. In fact, the type of patient was one that usually improves under sanatorium treatment, but without complete arrest of the disease. All but three had tubercle bacilli in the sputum. Twenty-four patients presented no febrile reaction at all, and a violent febrile reaction necessitating the abandonment of the treatment occurred only once. The disease was "cured" in 4, 19 were improved, 12 were stationary, and 9 became worse. More than a year later 7 patients were dead, 15 were unfit for work, 4 were fit for light work only, and 18 were "cured." This result compares unfavourably with the results in the same class of patient treated by sanatorium methods only. It would appear that substantial advantages from this form of tuberculin treatment in phthisis are absent. Bacillary emulsion has been extolled as an antipyretic, and Dr. Helm therefore administered it to 10 patients who, in spite of sanatorium treatment, remained febrile. Anatomically the disease was not very extensive, but in all profuse expectoration and numerous tubercle bacilli were present. Very small doses were given at first, and the largest final dose did not exceed 2·5 mgr. The treatment lasted on an average 55 days, the injections being given at intervals of from three to four days. In no case was the fever diminished by the treatment, and a year later 5 patients were dead and 5 were still unfit for work. The Russian tuberculin "endotin" was given to 10 sanatorium patients, 4 of whom were in Stage I., 4 in Stage II., and 2 in Stage III. of the disease. Gabrilowitsch's method of administration was adopted. Nine of the patients exhibited a reaction when the larger doses were reached. The average increase of weight was 10 lb. Tubercle bacilli were found in as many patients at the end as at the beginning of the treatment, which lasted on an average 93 days. The immediate results in 9 reported cases were: improvement in 4, no change in 2, and progress of the disease in 3. But a year later 6 were "cured," 2 were fit for light work, 1 was unfit for work, and 1 was dead. These results are interesting, although the material is too scanty for any conclusive inferences to be drawn. It must be pointed out that those results obtained with new tuberculin differ considerably from those reported by other observers, especially in certain German sanatoriums.

ŒDEMA INDUCED BY COMMON SALT IN CHILDREN.

IT is now well known that in patients suffering from nephritis or from failing compensation in heart lesions the presence of common salt in the diet exercises an important influence upon the occurrence of œdema, and a "salt-free" diet is recommended, more especially by French physicians, in the treatment of œdema resulting from these conditions. That the same phenomena may be observed in infants and children who are not the subject of renal or cardiac disease is less generally known. The matter is discussed in an interesting paper published in the *Münchener Medizinische Wochenschrift* of Nov. 21st by Dr. Franz Hamburger of Vienna. He states that in infants who are the subjects of acute or chronic disturbances of nutrition excess of salt may cause œdema, even when there is no evidence of disease of the kidneys or heart, and he records a case of similar nature in a boy 5 years of age. The child suffered from chronic digestive disturbance and neurasthenia. He was of emaciated and miserable appearance and was sent for a "cure" to Carlsbad, where he improved considerably. Shortly after his return he was brought to Dr. Hamburger, who found general œdema and marked swelling of the prepuce. The urine was free from albumin, and on examination a faint and variable systolic murmur was heard, which had often been observed before and was not regarded as indicative of any cardiac lesion. On inquiring into the diet taken by the child Dr. Hamburger found that the broth which the child had been given was

very salt, and that it had caused considerable thirst. He ordered a diet poor in salt, and in three days the œdema had lessened considerably, the child having lost 2¼ kilogrammes in weight during that time. The child is now completely sound and in good health. Dr. Hamburger has since found that in many children who are emaciated or cachectic or otherwise damaged by some illness the administration of common salt will lead to œdema, although the heart and kidneys may be healthy. Some cachectic children develop diarrhœa after the administration of salt, in which case œdema does not occur. These observations are of considerable interest and merit careful notice. As Dr. Hamburger points out, they suggest that in cachectic œdema the causal factor may be some agency which disturbs the normal metabolism of salts. They also indicate a definite line of treatment in some cases of obscure œdema in children, particularly those of supposed nephritis without albuminuria.

SOME SOCIAL AND INDUSTRIAL ASPECTS OF THE TUBERCULOSIS PROBLEM.

IN an interesting and instructive popular address entitled "The White Plague in its Social and Industrial Aspects," delivered by Sir Thomas Oliver at the opening of the Tuberculosis Exhibition at Middlesbrough on Dec. 1st, some useful information was collected and expressed in simple yet arresting language, together with thoughtful comments and suggestions. We have only space to refer briefly to some of the points discussed, but the whole address constituted an eloquent appeal to the public to assist in the campaign against tuberculous disease. It is first pointed out that the discovery of the tubercle bacillus has shown that, while the influence of heredity is not altogether to be ignored, at worst it only creates a predisposition, he claimed that this discovery has given hope, because it has opened the way to the study of the prophylaxis of infection by the two methods of preventing the bacillus from entering the body, and of improving the vitality of the body so as to resist infection. Sir Thomas Oliver, then quoted the returns for 1906 of the Registrar-General for the Dublin registration area, which show that in the professional and independent classes the tuberculosis death-rate was 0·63, in the middle-class 2·79, in the artisan and small shopkeeping class 3·54, and in the general service class 4·12 per 1000, and pointed out that these figures suggest that tuberculosis is associated with poverty. He maintained that it will not be far wrong to say that poverty and drink, accompanied by ignorance of the laws of hygiene, are largely responsible for the prevalence of pulmonary tuberculosis. He then considered the circumstances of daily life which may lead on to the way of infection by the tubercle bacillus, and emphasised the influence of badly lit, badly ventilated, dusty, and overheated rooms in favouring the spread of disease. The effects of smoke and dust, and of the dried expectoration of tuberculous patients, were also considered. He referred to some experiments carried out by Dr. Fritz Kristen, of Breslau, to determine the length of time tubercle bacilli remain alive in the dust which can float about in the air. This observer found the life of the tubercle bacillus to be very short, especially when the dust is exposed to daylight and sunlight. In street dust infected with tubercle bacilli the micro-organisms live from three to eight days, in cloth dust similarly infected they live from five to ten days, while in pulverised expectoration they are alive after four to seven days. On the other hand, allowance must be made for dust lying in cellar dwellings and badly lit houses, where the bacillus may retain its vitality for weeks or months. The importance of adequate diet and of good food was next emphasised by Sir Thomas Oliver, and he expressed the opinion that the high death-rate from pulmonary tuberculosis in France at the present time might be a distant but lingering back-wash of the wave of tuberculosis which passed over that country after the Franco-German war, caused by the deprivation of food and by the other rigours suffered during that time. The influence of alcohol in favouring infection by disease was next referred to, and then the rôle of milk from tuberculous cows in causing the disease especially in children was carefully explained. In connexion with preventive and curative procedures, Sir Thomas Oliver referred to compulsory notification as a wise provision. He emphasised the importance of better wages, better dwelling houses, and temperance, and urged that it is a wiser policy for a municipality to provide healthy dwellings for the poorer working classes, houses hygienically constructed, and provided with plenty of air-space and good water-supply, than to spend money upon sanatoriums and the maintenance of bereaved families. He strongly insisted that the milk-supply to our towns should be under the most careful municipal supervision. In connexion with a nasty habit indulged in by some persons—viz., moistening the fingers with saliva before turning over the pages of a book, Sir Thomas Oliver told an interesting story. It appears that in Michigan, a little while ago, the secretary of the Bureau of Health, struck by the large number of cases of pulmonary tuberculosis which had occurred in a particular office, had the leaves of the books examined, with the result that tubercle bacilli were found. The infection was proved to date from the time when a young clerk who had worked in the office, and was the subject of tuberculosis, had been in the habit of moistening his fingers with saliva before turning over the pages of the office books.

IT has been arranged to hold a discussion on Factors which Conduce to Success in the Treatment of Otogenic Brain Abscess at the meeting of the Otological Section of the Royal Society of Medicine on Friday, Jan. 19th, 1912, at 5 P.M., at 11, Chandos-street, London, W. The discussion will be introduced by Sir Victor Horsley and Mr. C. E. West, and the Otological Section are specially inviting members of other sections to take part in the discussion.

ANNUAL REPORT OF THE MEDICAL OFFICER OF THE LOCAL GOVERNMENT BOARD.

II.

RESUMING consideration of some of the more important sections of Dr. A. Newsholme's report, to which allusion was made in our article of Nov. 25th,[1] we note that the discussion of several of the principal topics entered upon in his report for 1909–10 is renewed in the present volume.

Tuberculosis.

In the above-mentioned article we commented briefly on the medical officer's account of the diminished incidence of tuberculous disease in this country during the last 40 years and the consequent saving of human life. Passing on to consider the various means by which consumption is acquired, and the methods available for its prevention, he remarks that tubercle bacilli are present mainly in the immediate vicinity of acutely consumptive patients of careless habits. The recovery of the majority of persons only slightly attacked may be ascribed to the small dosage of infection they have received or to their high powers of resistance. This resistance varies considerably in amount, being reduced greatly by an attack of measles or of influenza, for example, and being increased by good

[1] THE LANCET, Nov. 25th, 1911, p. 1501.

housing and appropriate nourishment. Among populations living under nearly equal conditions of nutrition the mortality from tuberculosis is found to be highest in those most exposed to protracted infection and to dusty occupations; it follows, therefore, that the greatest possibilities of fruitful action by sanitary authorities lie in preventing such protracted exposures to infection and dust.

In the active campaign against tuberculosis very much depends on the prompt recognition and treatment of incipient cases, for by this means we attain the most hopeful prospect of recovery. Moreover, the recovery of each individual sufferer removes an active focus of infection before its discharge becomes massive and therefore seriously dangerous to others. Unfortunately, however, only a small proportion of patients have hitherto come under observation in their early stages. Discovery of tubercle bacilli in the sputum of a patient implies a stage of the disease which cannot be considered early, and it is in this stage that most of the sufferers first apply for relief. Accordingly, in devising measures for staying the ravages of this scourge it is desirable that the foregoing considerations should have due weight. In the present campaign it is gratifying to realise that much help is already being rendered by the medical staffs of many of the general hospitals and dispensaries, as well as by those of the special hospitals for consumption, who are affording facilities for the detection and treatment of early cases of the pulmonary form of the malady. With respect to the management of advanced cases of phthisis Dr. Newsholme declares that no other measure for diminishing the prevalence of the malady compares with the segregation of such cases under hygienic conditions.

Notification of Pulmonary Tuberculosis.

The medical officer next discusses the measures already authorised by the Local Government Board for securing notification to the sanitary authorities of the existence of individual cases of tuberculosis. Referring to the tuberculosis regulations of 1908, by which cases of consumption occurring in Poor-law practice are compulsorily notifiable to the medical officer of health, he speaks of many towns in which the regulations have been valuable in securing help and advice for cases profoundly needing it. The experience acquired having shown that no disability attached to the cases notified under these regulations a further step was taken by the Board in May of the present year by making all cases coming under the care of charitable hospitals and dispensaries compulsorily notifiable. Under the Order the patient is specially safeguarded against any official interference that may prejudice him in the earning of his livelihood. On the contrary there is abundant evidence, according to the report, of notification bringing help to the stricken patient that had previously been unattainable. After expressing a strong opinion as to the desirability that all cases of consumption should be reported (a procedure which is largely provided for in a recent Order[2]), Dr. Newsholme warns his readers that early notification will not be completely secured even under a general compulsory system in the absence of arrangements for examination of possible cases by skilled diagnosticians, and that such notification will only be entirely successful when the local authorities are willing to organise means for helping the notified patients.

Secondary Infections in Pulmonary Tuberculosis.

Appended to this report is a contribution to the study of secondary infection in pulmonary tuberculosis by Dr. A. C. Inman, of the Brompton Consumption Hospital. While his inquiry gives little hope of success in controlling secondary infections in cases of advanced tuberculosis, the outlook is more hopeful in afebrile cases. Dr. Inman concludes that in most cases of "open" pulmonary tuberculosis the tubercle bacillus is the predominating infective agent, and that the temperature-chart alone cannot determine the presence or the absence of a secondary infection.

Enteric Fever.

In the article in our issue of Nov. 25th statistical details were quoted from this report respecting the decreasing incidence of enteric fever in this country. The money value was also shown of the life-saving thereby effected in 1910 as compared with former years. Readers of the long series of reports of the Local Government Board will remember that from the first the medical department has been mindful of the duty of improving our scanty knowledge respecting the modes of propagation of this refractory disease. Until quite recently the cause of enteric fever prevalence has been commonly attributed to a specifically polluted water-supply. But in later years other causes, such as the conservancy systems of excrement disposal, the influence of flies and of carrier cases, infected ice-creams, have been investigated, whilst water-supplies have been improved, so that the relative proportion of enteric fever attributed to polluted drinking water has undergone considerable diminution. From an excellent report by the late Dr. H. T. Bulstrode[3] published in February last we learn that on account of their cheapness various kinds of molluscs, especially cockles and mussels, often insufficiently cooked, enter largely into the dietary of the poorer residents on the English and Welsh littoral. These molluscs being collected from sewage-polluted sites at the mouths of rivers have, in numerous instances, been the cause of illness by enteric fever and enteritis among the consumers. To the same effect the opinion of Dr. John C. Thresh, the county medical officer of Essex, is quoted, which shows that the remarkable reduction in enteric fever fatality in certain districts under his charge is due to the disuse during 1909–10 of contaminated shell-fish for food. He states that before this date the disease was generally most prevalent wherever most shell-fish was collected and eaten. It can hardly be accidental, remarks Dr. Thresh, that five of the districts formerly most severely affected with enteric fever are on the coast, or near the mouths of estuaries.

Reverting to our comments in THE LANCET of Nov. 25th respecting an exceptionally severe outbreak of enteric fever at Eccles, we gather that the circumstances were further investigated at the laboratories of Professor S. Delépine of the Owens College, at the instance of Dr. S. M. Copeman. After scrutiny and exclusion of the more usual sources of infection—viz., water, milk, fish, and other foodstuffs, as well as of the sewerage and drainage of the town—evidence rapidly accumulated incriminating ice-cream retailed by itinerant vendors as being the main vehicle for the conveyance of infection. The outbreak was sudden, and the majority of the patients were infected within a few days of each other. A definite history was obtained that within the incubation period polluted ice-cream had been consumed by more than 100 of the persons primarily attacked. Evidence was wanting as to how the ice-cream became infected; but the probability is that it was due to contamination of the ice-cream during manufacture by a person who had imperfectly recovered from fever, or who was a carrier of infection long after having suffered from the disease.

Cerebro-spinal Fever and Poliomyelitis.

For some years past a continued fever due to the presence of the meningococcus has been observed at considerable intervals in various parts of Europe and of America. This disease—namely, cerebro-spinal fever—has also occurred sporadically and in a number of limited outbreaks in certain parts of Great Britain during the last few years. Epidemic poliomyelitis has likewise been occasionally met with in this country in the course of the last few years. From a communication to the Académie de Médecine on May 23rd last by M. Arnold Netter, we learn that during the year 1910 epidemics of acute poliomyelitis appeared in many widely separated districts of France.[4] In August last we received information from a special correspondent of an outbreak of "spotted fever" in the area around Holsworthy in Devonshire. Later, in the same neighbourhood, cases were recorded of acute poliomyelitis which apparently led to difficulties of diagnosis. As the epidemic appeared to be spreading Dr. R. J. Reece, a medical inspector of the Local Government Board, was sent down and made investigations on the spot.[5]

Both these diseases appear to be definitely infectious. From the before-mentioned report to the Académie de Médecine we learn that during the epidemic of acute poliomyelitis which occurred in the departments of the Aube and Yonne instances were met with of direct infection, of familial contagion, and of infection after contact with a healthy individual from the affected area who served as an intermediary.

[2] THE LANCET, Nov. 25th, 1911, p. 1495.

[3] A review of this report appeared in THE LANCET of April 22nd, 1911 p. 1039.

[4] THE LANCET, Sept. 2nd, 1911, p. 709.

[5] THE LANCET, Sept. 16th, p. 843, and 23rd, p. 896.

Referring to cerebro-spinal fever Dr. Newsholme observes that attacks of that disease probably occur not infrequently undetected, because meningitis may be caused by infections other than the meningococcus, for instance, by the pneumococcus or by pyogenic organisms, and the symptoms caused by invasion of the meninges by these organisms simulate those of epidemic cerebro-spinal fever, due to the meningococcus.

(To be concluded.)

BRITISH MEDICAL BENEVOLENT FUND.

AT the November meeting of the committee 33 cases were considered and grants amounting to £318 made to 30 of the applicants. The current account is consequently overdrawn to the extent of no less than £457, and the committee urgently appeals for the help which is absolutely necessary unless next month's applications are to be passed over. Contributions may be sent to the honorary treasurer, Dr. Samuel West, 15, Wimpole-street, London, W. The following is an abstract of the cases relieved:—

Daughter, aged 31, of late M.R.C.S. Is a black-and-white artist, but has been unable to obtain work for several months, and is consequently in great distress. Health feeble. Mother a candidate for an Epsom pension. Voted £10.

Widow, aged 74, of L.R.C.P. Edin. Has supported herself since her husband's death 25 years ago by letting lodgings, but finds increasing difficulty in doing so. Only income 5s. a week, an old-age pension. Voted £12.

Daughter, aged 37, of late L.R.C.P. Edin. Used to live with her mother in Paris and maintain herself by giving English lessons, but has been in bad health for the last two years and is now quite penniless. Hopes to shortly obtain pupils or a situation. Voted £5.

Widow, aged 44, of M.R.C.S. No income, and dependent on the help given by a step-son and what can be earned by letting a room. Relieved three times, £36. Voted £12.

Widow, aged 81, of M.R.C.S. Has a small income, but is obliged to support her grown-up children, of whom three are deaf and dumb, and the fourth only able to do a little needlework. Relieved nine times, £60. Voted £5.

M.R.C.S., aged 70. Is quite incapacitated and dependent on his wife, whose income is very small. Relieved once, £10. Voted £5.

Widow, aged 69, of M.R.C.S. Has maintained herself for 30 years by letting lodgings at a watering-place, but is now becoming crippled by rheumatoid arthritis. Voted £12.

Daughter, aged 63, of L.R.C.P. Edin. Is matron at a small orphanage, but has been obliged for many years to devote most of her salary to assist an invalid mother, recently deceased, and now asks for a little help towards the funeral expenses. Voted £5.

Daughter, aged 37, of late M.R.C.S. Has held good engagements as governess and companion, but for the last few months has been unable to obtain a post, and has exhausted her small savings. Voted £5.

L.S.A., aged 66. Used to have a fair practice in a London suburb, but had a long illness with consequent pecuniary difficulties, and is now endeavouring to make a fresh connexion. Relieved once, £10. Voted £10.

L.R.C.P. Irel., aged 65. Practised for many years in London, but was obliged to give up two years ago on account of ill-health, and is now quite incapacitated. No income; wife supplements slight help from friends by letting lodgings. Relieved twice, £36. Voted £18.

Widow, aged 60, of L.R.C.P. Edin. Endeavours to support herself by nursing, but for the last few years has found it most difficult to get engagements, and is now practically dependent on a small temporary grant from a charitable society; health indifferent. Relieved once, £12. Voted £12.

Widow, aged 66, of M.R.C.S. Since husband's death has supported herself by acting as housekeeper, &c., but is now unable to obtain any post and quite dependent on this Fund and the uncertain help of friends. Relieved three times, £36. Voted £12.

L.R.C.P. Edin., aged 54. Has been incapacitated for several years by spastic paraplegia and is dependent on relations who can ill afford to help. Relieved seven times, £84. Voted £12.

Daughter, aged 64, of late M.R.C.S. Assisted her mother in keeping a boarding-house to maintain her father during a many years' illness and now helps two sisters who have a school but can give applicant no salary; health feeble. Relieved three times, £36. Voted £12.

Daughters, aged 61 and 52, of late M.R.C.S. Endeavour to support themselves by taking boarders and ask for help to tide over the winter. Relieved twice, £28. Voted £18.

Daughter, aged 63, of late M.R.C.S. Dependent on two brothers whose help is uncertain and is in very feeble health. Relieved five times, £60. Voted £12.

Widow, aged 70, of L.R.C.P. Edin. Only income an old-age pension of 5s. a week and is crippled by chronic rheumatism. Relieved four times, £48. Voted £12.

Daughter, aged 41, of late L.R.C.P. Edin. Endeavours to earn a living by nursing, but has had no case for some weeks and sees no prospect of one. Relieved seven times, £56. Voted £5.

Daughter, aged 56, of late M.R.C.S. Is subject to attacks of insanity and obliged to live very quietly in the country at the expense of three half-sisters who all earn their living. Relieved seven times, £66. Voted £5.

Widow, aged 75, of M.D. Lond., who was physician to a special hospital. Only income two small annuities which are insufficient for the little comforts necessitated by applicant's age and infirmities. Relieved six times, £36. Voted £5.

Daughter, aged 58, of late M.D. Lond. Has earned as much as possible since father's death many years ago by giving lessons in painting, &c., but is now in ill-health and quite dependent on a half-sister. Relieved 28 times, £208. Voted £10.

Daughter, aged 49, of late L.S.A. Is mentally deficient and entirely dependent on a sister, who is a nurse. Relieved six times, £68. Voted £12.

Daughters, aged 59 and 54, of late M.R.C.S. No income; small earnings from needlework and slight help from friends. Relieved seven times, £94. Voted £20.

Daughter, aged 54, of late M.R.C.S. No income and incapable of earning a living. Relieved four times, £37. Voted £15.

Daughter, aged 57, of late L.S.A. Is in feeble health and dependent on a sister-in-law, who is a widow. Relieved 11 times, £105. Voted £15.

Widow, aged 51, of L.S.A. Quite unprovided for at husband's death from cancer a few years ago and dependent on a son earning £1 a week; is very deaf and in feeble health. Relieved five times, £68. Voted £18.

Widow, aged 63, of M.R.C.S. Unprovided for at husband's death several years ago and entirely dependent on her children. Relieved 13 times, £166. Voted £2.

Widow, aged 56, of M.B. Glasg. Has maintained herself for several years by letting lodgings and by needlework, but is now frequently incapacitated by illness. Slight help from two daughters earning small weekly wages. Relieved three times, £42. Voted £12.

Widow, aged 54, of L.R.C.P. Edin. Practically no provision at husband's death a few years ago and endeavours to support herself by taking boarders. Relieved once, £10. Voted £10.

PUBLIC HEALTH IN INDIA.

(Concluded from p. 1577.)

II. HOSPITALS AND DISPENSARIES.

THE reports which we have received regarding hospitals and dispensaries refer, as we intimated in our last issue, to the triennial period, 1908–10.

Eastern Bengal and Assam.

Colonel R. Neil Campbell, I.M.S., speaks of the urgent need that exists for female medical aid. Thousands of poor women go without treatment from the feeling that it is improper to be treated by a male medical attendant, and because no women doctors or medical assistants are available. He considers that there should be at every district headquarters both a female sub-assistant surgeon, and, if possible, a midwife; at the larger subdivisional headquarters, one of the former; and at the smaller, one of the latter. He has drawn up a scheme for the gradual introduction of such a system in the Province out of public funds, but considers that it is an object which should strongly appeal to public charity. He draws attention to the urgent need of a new hospital at Dacca, now the provincial capital. Encouraging results are reported from the nastin treatment of leprosy, but the numbers are too small as yet to warrant any conclusion being drawn from them. The hypodermic injection of Forster's vaccine has been tried for dysentery in 177 cases with somewhat indefinite results. Intraperitoneal saline injections in collapsed cholera cases have been successful in 37 out of 41 instances.

United Provinces.

The government of these Provinces has made an important modification in hitherto existing rules by allowing district boards to open dispensaries where they are considered to be required without demanding that public funds necessary for the whole upkeep shall be provided. These dispensaries can now be started if private subscriptions are available to assist in their support, and grants in aid may now be made to existing private institutions of a desirable kind, which will thus be encouraged and strengthened by this official support. Great efforts were made to cope with the excessive prevalence of malaria, and travelling dispensaries were established in four of the most stricken districts. More than 31,000 patients were treated in this way. Free distribution of quinine was also carried out extensively. The excessive infant mortality has been inquired into systematically at Cawnpore by a lady doctor and two trained native female nurses; the chief cause was found to be tetanus, due to the unclean methods of local midwives; a scheme has been brought into operation for the training of these nurses. It is stated that the nastin treatment for leprosy has been tried, but without satisfactory results. It was expected that the new medical college at Lucknow would be opened in October of this year; training will be provided for the full medical curriculum, but it is not yet decided whether the course will be for four or for five years. Colonel C. C. Manifold, I.M.S., does not speak very hopefully of the preventive treatment of plague; he considers it useless to expect effective limitation

of rats where food supplies are accessible; inoculation, the one successful and scientific means of combating the disease, has not been accepted by the people; evacuation is not carried out for a long enough time, the people returning to their infected houses only to become victims of the disease; he has more hope from the travelling dispensaries. Some idea of the work done in the hospitals and dispensaries of this province may be gained from these figures: 4,543,746 cases were treated: 196,759 operations were performed.

Central Provinces and Berar.

Lieutenant-Colonel A. Buchanan in his report mentions a severe and unusual outbreak of guinea-worm disease in a village near Nagpur; over 100 persons were affected, all of whom drank water from one well, while the people who used the other four wells in the village were entirely free from the disease; a few persons drank water from the infected well, but filtered it through cloth; none of these were affected. The cyclops, which is the host of the guinea-worm (but which is not a small "insect" as described in the report), was removed from the water by straining through the cloth. Another interesting point is the mention of the occurrence of 25 cases of enteric fever at Chindwara among Indians with symptoms nearly the same as in Europeans; it is not stated to what native race these patients belonged.

Burma.

The principal item of interest in the report on Burma is the opening of the new general hospital at Rangoon, which, however, is not yet finished, though patients are now accommodated there. It is gratifying to note the large increase in women and female children treated; the numbers have risen from 8852 in 1908 to 14,586 in 1910. A considerable increase in syphilis admissions in Burma is noted, especially in Rangoon; venereal diseases are also prevalent at Mandalay; these points are deserving of the particular attention of the Government. Scientific work in the laboratory is carried on under difficulties in the climate of Rangoon; bacteriological investigations are, however, now conducted with success; one of considerable importance to the public health of the city was the detection of cases of glanders among men living in close contact with cab-horses.

III. JAILS.

These reports refer to the year 1910.

Bengal.

In this province a reduction in the average numbers in jail took place in 1910 from 15,065 to 13,163, due mainly to the good season of 1909–10, in which the petty thefts and minor offences of a population affected by scarcity and high prices were less numerous. Lieutenant-Colonel W. J. Buchanan, inspector of prisons, writes strongly against the present system of the employment of convicts as warders, many being appointed to positions of trust, even to be night guards, who were not eligible, but had to be employed owing to insufficiency of the regular warders. The question of alterations in the prison dietary is now under consideration, consequent on Major D. McCay's recent investigations.[1] The death-rate of prisoners was only 18·6 per 1000, the lowest yet recorded (except 17·5 in 1907). The improvement that has taken place has been extraordinary; in the quinquennium 1875–79 the death-rate was 65. The chief cause for this good result in 1910 was absence of overcrowding in the jails, owing to the prosperity of the province consequent on the excellent harvests. Dysentery was much less prevalent, also tuberculosis. Lieutenant-Colonel Buchanan alludes to the effects of the unrest in Bengal during the last few years; the prisoners are not so manageable as formerly, and the work of the jail officers has been rendered more difficult and harassing.

Eastern Bengal and Assam.

Lieutenant-Colonel B. J. Singh reports a steady increase in the number of prisoners since the formation of the new province in 1905, the daily average being now 8136. He complains that magistrates continue to commit juvenile offenders of 10 to 12 years of age to jail for short periods, in spite of recent orders by the Government. No suitable accommodation exists for these juveniles, and the risk of their contamination by the older criminals is very great; moreover, the jails were constantly overcrowded. The death-rate was 32·57 per 1000, a higher ratio than in any year of the decennium; dysentery and tubercle of the lungs were the chief causes of the increase. Lieutenant-Colonel Singh believes that there is a close connexion between the former disease and oral sepsis, and states that wherever medical officers had interested themselves in the proper care of the prisoners' gums and disinfection of their mouths the results were satisfactory. Forster's vaccine was not found to be effective as a dysentery prophylactic. Tubercle of the lungs was in many cases acquired before admission to jail, but the overcrowding and want of separate accommodation were largely responsible for its spread.

[1] See THE LANCET, Oct. 22nd, 1910, p. 1217.

United Provinces.

In the United Provinces the jail death-rate was only 15·6 per 1000, compared with 23·7 in the previous year. This denotes a return to normal health after the famine and malarial epidemic of 1908–09. Dysentery was less frequent and fatal. Lieutenant-Colonel C. Mactaggart believes that this was because the prisoners were in better health and condition when received into jail. Tubercle of the lungs was also less severe; malaria was much less prevalent. It is interesting to learn that a female prisoner escaped from the prison at Benares by climbing over the wall, though she was 70 years of age. In her youth she had been an acrobat. But even so, the vigilance does not seem to have been up to the mark.

Central Provinces.

At Raipur jail dysentery caused 195 admissions and 49 deaths. Lieutenant-Colonel W. B. Lane states that the disease was introduced into the jail by a batch of prisoners from the Bastar State, and that it spread rapidly. At Nagpur jail, also, there was an epidemic of 90 cases with 11 deaths. In Lieutenant-Colonel Lane's opinion the disease is due to excess of food, the "unaccustomed plenty" of the jail.

Bombay.

In the Bombay Presidency the jail death-rate was 14·5 per 1000, a very satisfactory figure. No epidemic disease occurred of any importance.

Burma.

In the jails here the death-rate was only 11·98 per 1000, the lowest but one on record. An unfortunate misadventure occurred at one jail where a prisoner surreptitiously took a dose of concentrated solution of quinine, stated to have been at least 300 grains (!); he died in two hours.

IV. LUNATIC ASYLUMS.

In Bengal the rate of mortality among asylum patients was very low, being only 6·58 per cent. of the inmates, a lower figure than that obtaining in the county and borough asylums in England for 1909, which was 9·96. There were no deaths at all from fever. In Eastern Bengal and Assam the mortality rate was 11·81, tubercular disease having caused more than half the deaths at Tezpur Asylum; this was attributed to overcrowding, and the construction of a tubercle ward will be carried out during the current financial year. With the increased accommodation provided in the new hospital of the Punjab Asylum, by which all cases of tubercle, ankylostomiasis (from mud eating), and bowel affections are segregated, there has been considerable improvement in health. The majority of cases in the Indian asylums, of which reports have been received, were, as usual, cases of maniacal insanity.

VITAL STATISTICS.

HEALTH OF ENGLISH TOWNS.

IN 77 of the largest English towns, having an estimated population of 16,157,797 persons in the middle of this year, 7472 births and 4869 deaths were registered during the week ending Dec. 2nd. The annual rate of mortality in these towns, which had risen from 13·1 to 14·2 in the three preceding weeks, further rose to 15·7 per 1000 in the week under notice. During the first nine weeks of the current quarter the mean annual rate of mortality in these towns averaged 14·2 per 1000, and was 0·3 per 1000 higher than that recorded in London during the same period. The annual death-rates in the 77 towns last week ranged from 7·5 in Walthamstow, 8·7 in Northampton, 10·2 in King's Norton, and 10·6 in Tynemouth to 21·4 in Sunderland, 21·6 in Wigan, 22·5

in Burnley, and 23·1 in Bootle. The 4869 deaths from all causes in the 77 towns were 481 in excess of the number in the previous week, and included 276 which were referred to the principal epidemic diseases, against numbers steadily declining from 2900 to 259 in the 14 preceding weeks. Of these 276 deaths, 68 resulted from infantile diarrhœa, 66 from measles, 57 from diphtheria, 38 from whooping-cough, 25 from scarlet fever, and 22 from enteric fever, but not one from small-pox. The mean annual death-rate from these epidemic diseases last week was equal to 0·9, against 0·9 and 0·8 per 1000 in the two preceding weeks. The deaths of infants under two years of age attributed to diarrhœal diseases, which had steadily declined from 2714 to 73 in the 14 preceding weeks, further fell to 68 last week, and included 29 in London and its suburban districts, 4 in Nottingham, and 3 each in Burnley, Leeds, and Sheffield. The deaths referred to measles, which had been 37, 51, and 44 in the three preceding weeks, rose to 66 last week; 11 deaths were recorded in Burnley, 9 in London, 8 in Nottingham, 5 in Norwich, and 4 in Manchester. The fatal cases of diphtheria, which had been 55, 64, and 61 in the three previous weeks, again declined to 57 last week, and of this number 15 were registered in London and its suburban districts, 5 in Liverpool, 4 in Manchester, and 3 each in Bristol, Stoke-on-Trent, Sheffield, and Cardiff. The deaths assigned to whooping-cough, which had increased from 16 to 32 in the four preceding weeks, further rose last week to 38, and included 7 in London, 5 in Birmingham, 5 in Sunderland, and 3 each in Walsall, Manchester, and Leeds. The 25 fatal cases of scarlet fever were equal to the average in the two previous weeks; 4 deaths occurred in Manchester, and 2 each in Stoke-on-Trent, Birmingham, Salford, Preston, Halifax, and Leeds. The deaths attributed to enteric fever, which had declined from 35 to 20 in the four preceding weeks, slightly rose to 22 last week, and of these 9 were recorded in London and its suburban districts and 3 in Bolton. The number of scarlet fever patients under treatment in the Metropolitan Asylums and in the London Fever Hospital, which had been 2203, 2213, and 2166 at the close of the three preceding weeks, declined again to 2141 on Saturday last; 248 new cases of this disease were admitted to these hospitals during the week, against 292, 291, and 203 in the three preceding weeks. These hospitals also contained on Saturday last 1342 cases of diphtheria, 177 of whooping-cough, 86 of enteric fever, and 72 of measles, but not one of small-pox. The 1307 deaths from all causes in London last week were 161 in excess of the number recorded in the previous week, and included 297 which were referred to diseases of the respiratory system, against numbers rising from 170 to 243 in the four preceding weeks. The deaths attributed to different forms of violence in the 77 towns, which had been 167 and 158 in the two preceding weeks, rose to 188 last week, and 437 inquest cases were registered. The causes of 39, or 0·8 per cent., of the deaths registered in the 77 towns last week were not certified either by a registered medical practitioner or by a coroner after inquest. All the causes of death were duly certified in Manchester, Leeds, Bristol, West Ham, Bradford, Newcastle-on-Tyne, Nottingham, Stoke-on-Trent, and in 51 other smaller towns. The 39 uncertified causes of death in the week under notice included 8 in Liverpool, 6 in Sunderland, 5 in Birmingham, 3 in London, and 3 in Coventry.

HEALTH OF SCOTCH TOWNS.

In eight of the principal Scotch towns, having an estimated population of 1,710,291 persons in the middle of this year, 742 births and 589 deaths were registered during the week ending Dec. 2nd. The annual rate of mortality in these towns, which had been 18·6 and 16·7 in the two preceding weeks, rose to 18·0 per 1000 in the week under notice. During the first nine weeks of the current quarter the mean annual death-rate in these Scotch towns averaged 16·6, and was 2·4 per 1000 above the mean rate during the same period in the 77 large English towns. The annual death-rates in the several Scotch towns last week ranged from 14·5 and 14·9 in Perth and Leith to 18·8 in Glasgow and 20·8 in Aberdeen. The 589 deaths from all causes were 41 in excess of the number in the preceding week, and included 72 which were referred to the principal epidemic diseases, against 65 and 63 in the two previous weeks; of these 72 deaths, 31 resulted from measles, 16 from diarrhœal diseases, 15 from diphtheria, 6 from whooping-cough, 2 from scarlet fever, and 2 from enteric fever, but not one from small-pox. The mean annual death-rate from these epidemic diseases in the eight towns last week was equal to 2·2 per 1000, and was 1·3 per 1000 above the mean rate from the same diseases in the 77 large English towns. The deaths referred to measles, which had been 13, 28, and 23 in the three preceding weeks, rose to 31 last week, and included 18 in Aberdeen and 11 in Glasgow. The deaths attributed to diarrhœal diseases, which had been 19 and 16 in the two previous weeks, were again 16 last week, and included 10 of infants under two years of age; 9 deaths were registered in Glasgow, 3 in Dundee, 2 in Edinburgh, and 2 in Paisley. The fatal cases of diphtheria, which had declined from 14 to 7 in the three preceding weeks, rose to 15 last week, and included 8 in Glasgow and 2 each in Edinburgh, Dundee, and Aberdeen. The 6 deaths assigned to whooping-cough, of which 3 were recorded in Glasgow, were equal to the average in the four preceding weeks. The 2 fatal cases of enteric fever, both of which occurred in Glasgow, were equal to the number in each of the two preceding weeks. The 2 deaths referred to scarlet fever were registered in Glasgow and Leith respectively. The deaths referred to diseases of the respiratory system, which had been 144 and 113 in the two preceding weeks, were again 113 last week, and were 44 below the number recorded in the corresponding week of last year. Of the 589 deaths from all causes in the Scotch towns last week, 161, or 27 per cent., were recorded in public institutions, and 16 were attributed to different forms of violence. The causes of 17, or 2·9 per cent., of the deaths in the eight towns in the week under notice were not certified or not specified; in the 77 large English towns the proportion of uncertified causes did not exceed 0·8 per cent.

HEALTH OF IRISH TOWNS.

In the 22 town districts of Ireland, having an estimated population of 1,149,495 persons in the middle of this year, 570 births and 403 deaths were registered during the week ending Dec. 2nd. The annual rate of mortality in these towns, which had been 19·0 and 18·0 in the two previous weeks, rose to 18·3 per 1000 in the week under notice. During the first nine weeks of the current quarter the mean annual death-rate in these Irish towns averaged 18·3 per 1000; in the 77 large English towns the mean annual death-rate during the same period did not exceed 14·2, while in the eight Scotch towns it was equal to 16·6 per 1000. The annual death-rate last week was equal to 21·6 in Dublin (against 15·1 in London), 13·6 in Belfast, 25·9 in Cork, 12·8 in Londonderry, 12·2 in Limerick, and 20·9 in Waterford; in the 16 smallest of these Irish towns the death-rate last week was equal to 19·8 per 1000. The 403 deaths from all causes were 7 in excess of the number in the previous week, and included 40 which were referred to the principal epidemic diseases, against 47 and 44 in the two preceding weeks; of these 40 deaths, 14 resulted from diarrhœal diseases, 11 from whooping-cough, 6 from diphtheria, 4 from measles, 3 from scarlet fever, 1 from enteric fever, and 1 from typhus, but not one from small-pox. These 40 deaths from the principal epidemic diseases were equal to an annual death-rate of 1·8 per 1000; in the 77 English towns the mean annual death-rate from these diseases last week did not exceed 0·9 per 1000, while in the eight Scotch towns it was equal to 2·2. The deaths attributed to diarrhœal diseases, which had been 19 in each of the two preceding weeks, declined last week to 14, all of which related to children under 2 years of age; 6 deaths were recorded in Dublin, 2 in Belfast, and 2 in Waterford. The deaths referred to whooping-cough, which had increased from 1 to 11 in the four preceding weeks, were again 11 last week, and included 4 in Lurgan, 3 in Dublin, and 3 in Belfast. The fatal cases of diphtheria, which had been 12 and 2 in the two preceding weeks, again rose to 6 last week, of which 3 were registered in Dublin. The 4 deaths from measles were equal to the number in the previous week, and comprised 3 in Dublin and 1 in Cork. The 3 fatal cases of scarlet fever, which were 2 fewer than in the previous week, were registered in Dublin, Belfast, and Sligo respectively. The fatal cases of typhus and enteric fever were recorded in Dublin. The deaths referred to diseases of the respiratory system, which had been 75, 73, and 78 in the three preceding

weeks, were 77 last week. Of the 403 deaths from all causes in the Irish towns last week, 149, or 37 per cent., were recorded in public institutions, and 8 were attributed to different forms of violence. The causes of 12, or 3·0 per cent., of the deaths in the 22 towns in the week under notice were not certified either by a registered medical practitioner or by a coroner after inquest; the proportion of uncertified causes last week did not exceed 0·8 per cent. in the 77 English towns, but was equal to 2·9 per cent. in the eight Scotch towns.

THE SERVICES.

ROYAL NAVY MEDICAL SERVICE.

THE following appointments have been notified:—Staff-Surgeons: A. La T. Darley to the *Hazard*; and H. P. Turnbull to the *Vernon*, additional, for the *Furious*. Surgeons: R. A. Rankine and H. White to the *Victory*; W. L. Cowardin and Q. H. Richardson to the *Vivid*; L. A. Moncrieff and A. C. Paterson to the *Pembroke*, all additonal, for disposal; and G. D. Bateman to the *Victory*, additional, for disposal.

ROYAL ARMY MEDICAL CORPS.

Captain John W. West to be Major (dated Nov. 29th, 1911). Captain Edmund S. Worthington, M.V.O., is seconded for special extra-regimental employment (dated Sept. 29th, 1911).

The undermentioned officers are seconded for service under the Foreign Office:—Captain Ronald E. Todd (dated Nov. 1st, 1911) Lieutenant Campbell Robb (dated Nov. 14th, 1911). Lieutenant Robert Gale (dated Nov. 15th, 1911). Lieutenant Pierce M. J. Brett is confirmed in his rank.

Surgeon-General A. T. Sloggett, C.B., C.M.G., Principal Medical Officer of the Sixth (Poona) Division, Southern Army, has been selected for appointment as Principal Medical Officer of the Coronation Durbar at Delhi. Lieutenant-Colonel H. C. Thurston, C.M.G., on return from a tour of foreign service in Bermuda, has been posted to the Aldershot Command. Lieutenant-Colonel W. L. Grey, in charge of the Military Hospital at Winchester, has been detailed by the War Office for a tour of service in India. Lieutenant-Colonel R. Kirkpatrick, C.M.G., has taken up duty as Senior Medical Officer in Egypt. Lieutenant-Colonel N. C. Ferguson, C.M.G., has left Queen Alexandra's Military Hospital, London, and taken over charge of the Military Hospital at York. Lieutenant-Colonel J. S. Green, from Naini Tal, has been appointed to command the Station Hospital at Bangalore, in succession to Lieutenant-Colonel W. C. Beevor, C.M.G., tour expired. Lieutenant-Colonel H. J. Fletcher, commanding the Station Hospital at Sialkot, has received an extension of his command until May, 1913. Lieutenant-Colonel T. Daly has been appointed to command the Station Hospital at Peshawar for a period of three years. Lieutenant-Colonel A. L. F. Bate, commanding the Station Hospital at Kuldana, has been appointed Senior Medical Officer on board the troopship s.s. *Rewa* which left Karachi for Southampton on Dec. 9th. Major W. E. P. V. Marriott, at present serving in the Dublin District, has been posted to Mullingar with effect from Dec. 18th, on which date he will take over the charge of the Military Hospital at the latter station, in succession to Major C. S. Smith. Major R. Tilbury Brown, specialist sanitary officer to the Burma Division, has been permitted to extend his tour of service for one year. Major L. Way has been transferred from Golden Hill to Cosham. Major C. W. H. Whitestone, from Peshawar, has taken up duty at Cherat as Staff Officer for Medical Mobilisation Stores in the First (Peshawar) Division. Major H. S. Anderson, from Moore Park, has been posted to Buttevant Camp. Major F. W. Begbie, surgical specialist at Colchester, has taken over Medical Charge at Ipswich during the absence on leave of Lieutenant-Colonel H. L. Battersby. Major W. P. Gwynn, on return to India from leave, has taken up the appointment of Embarkation Medical Officer at Karachi for the current trooping season. Captain S. E. Lewis has been appointed to succeed Captain J. Tobin as Medical Officer in charge of the Military Families Hospital at Devonport. Captain F. J. Stuart has been transferred from the Eighth (Lucknow) Division to the Seventh (Meerut) Division for employment as Specialist in Dermatology and Venereal Diseases. Captain J. H. Brunskill has been selected for appointment as Clinical Pathologist at the Curragh. Captain S. Boylan-Smith has taken up duty at Belfast as Specialist Sanitary Officer. Captain R. P. Lewis has arrived home on leave of absence from South Africa. Captain P. G. Hyde, from Dublin, has embarked for a tour of service in Ceylon. Captain C. E. W. S. Fawcett, on return from Thayetmyo, Burma, and Captain M. J. Cromie, from Delhi, have been ordered to join for duty in Ireland, and on arrival will be posted to the Dublin District. Captain M. Keane, from Meerut, has been detailed for duty on board the troopship s.s. *Rewa* which left Karachi for Southampton on Dec. 9th. Captain A. E. B. Wood has embarked for a tour of service at Hong-Kong. Captain F. A. Stephens has been placed under orders for service in the Second (Rawal Pindi) Division of the Northern Army and will embark during the current trooping season. Captain J. H. Campbell, from Warrington, has joined at Bury. Captain H. H. A. Emerson, from Clonmel, has been appointed to Limerick. Captain D. S. B. Thomson has arrived home on leave of absence from Egypt. Captain H. Harding, from York, has taken up duty at Leicester. Captain M. F. Grant, from Aldershot, has joined the London District. Lieutenant J. R. Yourrell has embarked for a tour of service in Burma. Lieutenant O. W. McSheehy, from Taunton, has taken up duty in South Africa. Lieutenant C. M. Finny, from the Curragh, has been posted to the Dublin District. Lieutenant J. Gilmour has been transferred from Cardiff to Devonport. Lieutenant E. T. Gaunt, from Canterbury, has been appointed to the Military Hospital at Shorncliffe. Lieutenant G. H. Stack has been posted temporarily to the London District and attached to the Guards Depôt at Caterham pending embarkation.

INDIAN MEDICAL SERVICE.

The King has approved of the retirement of Lieutenant-Colonel Ernest Gerald Robert Whitcombe (dated Oct. 27th, 1911).

Lieutenant-Colonel T. W. Irvine has been appointed to officiate as Civil Surgeon at Peshawar. Lieutenant-Colonel P. J. Lumsden, Bengal Presidency, has received two months' extension of his leave of absence. Lieutenant-Colonel W. Vost, civil surgeon at Saharanpur, has been transferred for duty at Lucknow. The services of Lieutenant-Colonel J. Crimmin, V.C., C.I.E., have been replaced temporarily at the disposal of the Government of India by H.E. the Governor of Bombay. Major L. T. R. Hutchinson has been selected to hold charge of the office of Presidency Surgeon, Third District, Bombay, pending the arrival of Major A. W. Tuke. Major G. P. T. Groube has arrived home on leave of absence from India. Major V. H. Roberts has been appointed for duty under the administration of the Central Provinces as officiating Civil Surgeon at Seoni and to the Executive and Medical Charge of the Seoni District Jail. The Lieutenant-Governor of the Punjab has been pleased to appoint Captain D. H. F. Cowin to be a Civil Surgeon of the Second Class. The services of Captain B. B. Paymaster have been placed permanently at the disposal of the Government of Bombay. Captain H. Emslie-Smith, Bengal Presidency, has arrived home on leave of absence. Captain C. H. Reinhold has been permitted to extend his leave by the Secretary of State for India. Captain F. O. D. Fawcett and Captain G. M. Millar have embarked for India on termination of their leave of absence. H.E. the Governor of Bombay in Council has been pleased to appoint Captain A. J. V. Betts to be a Civil Surgeon of the Second Class and to officiate as Civil Surgeon at Nasik. The services of Captain G. J. Davys have been placed by the Home Department of the Government of India at the disposal of H.E. the Commander-in-Chief for military employment. Captain E. B. Munro has taken up duty under the Government of Eastern Bengal and Assam. Captain S. H. Lee Abbott has been transferred as Civil Surgeon to Dalhousie. Captain E. Bisset has taken up duty under the United Provinces Administration as medical officer in charge of plague prevention in the Meerut District. Captain W. Lapsley, civil surgeon of Azamgarh, has arrived home on one year and four months' leave of absence from India. The services of Captain V. B. Green-Armytage have been placed temporarily at the disposal of the Government of Eastern Bengal and Assam.

SPECIAL RESERVE OF OFFICERS.

Royal Army Medical Corps.

Harry Dudley Rollinson to be Lieutenant, on probation (dated Nov. 3rd, 1911).

TERRITORIAL FORCE.

Royal Army Medical Corps.

2nd East Anglian Field Ambulance, Royal Army Medical Corps: Lieutenant John K. Howlett resigns his commission (dated Dec. 2nd, 1911).

2nd East Lancashire Field Ambulance, Royal Army Medical Corps: Quartermaster and Honorary Lieutenant Sidney Pritchard is granted the honorary rank of Captain (dated May 28th, 1911).

2nd Lowland Field Ambulance, Royal Army Medical Corps: Lieutenant Alexander M. Watson to be Captain (dated Nov. 7th, 1911).

1st Northumbrian Field Ambulance, Royal Army Medical Corps: The undermentioned officers to be Captains: Lieutenant James W. Heslop (dated Oct. 25th, 1911), Lieutenant James P. Milne (dated Oct. 25th, 1911), Lieutenant William Simpson (dated Oct. 25th, 1911), and Lieutenant George H. Spencer (dated Nov. 2nd, 1911).

Attached to Units other than Medical Units.—Lieutenant John A. Preston to be Captain (dated June 8th, 1910). Lieutenant John J. Weaver resigns his commission (dated Dec. 2nd, 1911).

For Attachment to Units other than Medical Units.—John Crosthwaite Bridge to be Lieutenant (dated Oct. 14th, 1911).

ROYAL ARMY MEDICAL CORPS TRAINING IN IRELAND.

The General Officer Commanding-in-Chief in Ireland has arranged for a staff tour for the medical services to be held at Newcastle, county Down, from Dec. 11th to 14th. The directing staff will consist of Surgeon-General G. D. Bourke, C.B., K.H.P., principal medical officer, Irish Command; Brigadier-General F. W. N. McCracken, C.B., D.S.O., general staff, Irish Command; Colonel M. W. J. Edye, assistant director of supplies and transport, Irish Command; Colonel R. H. S. Sawyer, administrative medical officer of the Dublin District; Major C. Dalton, R.A.M.C, staff officer to the principal medical officer, Irish Command; Major D. J. Collins, R.A.M.C.; and Major A. Symons, general staff, Irish Command. The following Royal Army Medical Corps officers will take part in the tour: Lieutenant-Colonel J. H. Daly (Limerick), Lieutenant-Colonel O. R. A. Julian (Dublin), Major G. S. Crawford (Curragh), Major H. S. Anderson (Moor Park), Captain J. Dorgan (Cork), Captain J. H. Brunskill (Curragh), Captain W. D. C. Kelly (Dublin), Captain C. W. O'Brien (Kilbride), Captain S. B. Smith (Belfast), and Captain A. T. Frost (Dublin).

THE JAPANESE NAVAL MEDICAL DEPARTMENT IN THE RUSSO-JAPANESE WAR.

The fourth instalment of the translation of the Japanese Naval Medical report on the late war by Dr. Chemin, staff-surgeon in the French Navy, appears in the November number of the *Archives de Médecine et Pharmacie Navales* (O. Doin, Paris, 2 francs), and is concerned with the methods employed on board in the conveyance of the wounded to the dressing-stations. Most of them walked below by themselves; of the rest, by far the majority were men-handled, but the number carried down on stretchers increased as the war went on. The Japanese had had many of their ships built abroad, and with these had acquired examples of the stretchers of all nations. They examined them to find the most useful pattern, and ultimately concluded that, for their needs, the best was the one designed by their Surgeon-General Totsuka. This they call Renjo-Choka. It is essentially a double thickness of canvas, so sewn together as to leave narrow longitudinal channels, in which are inserted long, light slats of bamboo. Thus arranged, the apparatus can be folded round the wounded man, and the bamboo strips act conveniently as splints. Straps to secure him radiate from the perineum, and others tie the whole round his body. In the form it had reached at the end of the war the central strips behind his back were some six feet long to support his head as well as his body, the strips were omitted at the sides, and they were much shorter in front so as to clear his chin. The canvas extended above and below a little way, and through these extensions rope grummets were worked to give the bearers something to hold, to make carrying easier, and make lowering by a tackle possible. In the practice, which was assiduously carried out, the ambulance parties became very deft in the use of this appliance, which, as improved, gave every satisfaction. It was almost invariably used for carrying the wounded from the dressing station after their wounds were dressed, also for the conveyance of the dead; but the bearers were too anxious to get the wounded down to the doctors quickly to spare time in battle to use this stretcher for any but the serious cases.

Correspondence.

"Audi alteram partem."

THE NATIONAL INSURANCE BILL.

To the Editor of THE LANCET.

SIR,—At a meeting held to-day the following resolution was approved by every medical practitioner in Keighley and the immediate districts.

I am, Sir, yours faithfully,

Keighley, Dec. 5th, 1911. JOHN B. BERRY, M.D. Edin.

That the National Insurance Bill as at present framed does not satisfactorily embody the reasonable demands of the medical profession as defined by the British Medical Association; that the scheme is unworkable, detrimental to the medical profession, and dangerous to the public health; therefore, in the event of the Bill becoming law in its present form, we medical practitioners in Keighley and district express our determination to refuse to undertake the duties which the Bill proposes to assign to us.

To the Editor of THE LANCET.

SIR,—Has not the time arrived when *per capita* contract practice should receive its true description—"*Speculation* in the care of the health and injuries of human beings"? What a truly magnificent gift to the nation is the sanction of Parliament to such a system! No end of arguments have come to you. From that of the gentleman who was anxious to split the "last straw" (a £20 bill) into so many portions as not to be felt, to those who find in the method freedom from all clerical work ("wait and see") and a chance of being paid something for nothing. Unfortunately for the former, if the German 40·2 per cent. invalidity incidence is correct and all the actuarial 6*s.* is for medical attendance, less than 18*s.* would be available for payment, £19 odd would remain the "last straw," and the poor doctor "the camel."

Is there a professional expert to be found who could correctly advise an outfitter the sum to quote to a newly married couple for the annual supply of their prospective family with clothing? All will agree they know of none; nor can one be found who would foretell with certainty the amount of sickness any given number of individuals must suffer in a year. The West Country expression sums it up: "'Tis all chance-work, isn't it?"

Surely, if we care nothing about future generations of medical men—and have we not a duty to them?—the effect *upon the patient* of any system adopted should be some concern of ours. I have had experience in England, Scotland, and Wales, and never found one who was getting his treatment on the *per capita* principle thoroughly satisfied; many much the reverse. Nor is the panel going to remove their objection; for I find that I annually attend some 150 patients who prefer to pay me whilst they have a panel of four to choose from—at the Chancellor's figure, too. Nobody disputes that half the cure is to impress the patient that you are going to do your best for him. The first essential to this is the belief that the service is willing.

The safeguards against over-attendance are for the framers of regulations to fix, not for the profession to worry out for them. What we must see to is that they are just, and that we are protected from being compelled to do unrewarded work. As an example: Some 600 or 700 people did not require a single night visit during a couple of months because they had to pay 2*s.* 6*d.* for it, but half a dozen of them when being attended gratuitously at the completion of the contract required two or three in a week. If the Insurance Committees are to be repaid the cost of excessive sickness, why not the medical attendant for excessive calls? Will "Old Moore" or will "Zadkiel" be the more likely expert to predict these periods of excessive sickness? Will an insufficient salary paid to the medical officer of health constitute "neglect to observe a public health precaution"?

Should we not insist that there is an actual "free choice of doctor" by securing the acceptance of the certificate of any duly qualified and registered medical man for payment of sickness and disablement benefit and not of those on the

panel only, otherwise a grave injustice will be inflicted on those who are willing to pay a medical attendant. We should also insist on absolute freedom as to what drugs and appliances may be prescribed; to secure continuance on the panel of those who give the best treatment available, as well as that nothing should be repeated without the written order of the prescriber. If the fee for attendance on cases where a midwife is in difficulty is to be payable by the local authority, should it not be something adequate, in view of the greater proportion of ordinary cases being attended by midwives?

A fund is suggested to recompense those who have been manufacturing the rope with which the Chancellor of the Exchequer is endeavouring to hang the profession! What of those who have, in loyalty to the best traditions of practice, refused *per capita* work?—I am, Sir, yours faithfully,

WILLIAM SPETTIGUE, M.B. Edin.

Wellington, Somerset, Dec. 4th, 1911.

To the Editor of THE LANCET.

SIR,—The position is so critical that the attitude of THE LANCET is of the greatest importance.

Many branches of the British Medical Association last week declined to consider the recommendations of the Council, and passed strongly-worded resolutions, to the effect that they would decline to act in any way under the Bill if it should be passed in its present form, and these resolutions were passed before it was known that the Council had sanctioned the acceptance by Mr. Smith Whitaker of an appointment as Insurance Commissioner.

Not one of the six points insisted upon by the representative meeting has been embodied in the Bill, unless it has been neutralised and rendered of no effect by other clauses; the profession will be face to face with health committees absolutely dominated by Friendly Societies; and the Insurance Commission (which has been given drastic powers without appeal) is composed of Friendly Society and Labour officials.

It is quite clear that if there were otherwise no objection to Mr. Smith Whitaker's acceptance of the appointment offered to him, there would be the objection that his appointment would be useless to the profession, as he would be outvoted perpetually; and even if he carried the Commission with him on some points, the points would be useless, in view of the fact that the requirements of the profession have not been accepted and embodied in the Bill.

In refusing to consider the recommendations of the Council a large number of members of the British Medical Association have practically censured the Council, and from all I hear the more recent action of the Council in approving of Mr. Smith Whitaker's appointment will be even more strongly condemned: if so, there will be no course open to the members of the Council other than to resign.

From the resolution already passed by the most important branches it is certain that the great majority of the profession will decline to act in any way under the Bill, unless at the last moment it is greatly modified by the Chancellor by amendments introduced during the passage of the Bill in the House of Lords. I venture to ask you to use your great influence to obtain such amendments, for as it stands the Bill, if passed, will be absolutely unworkable, and must be a failure. I am, Sir, yours faithfully,

S. Hampstead, Dec. 6th, 1911. ALBERT BENTHALL.

To the Editor of THE LANCET.

SIR,—Sir Alfred Pearce Gould states that there are no advocates for the system of State doctors and the system under which the State would undertake to pay the bills for medical attendance upon the insured. The former is advocated by many, and the latter by still more, and would be acceptable to every medical man, but not to any others of the tax-paying community.

Under a scheme of payment for work done the profession would, I believe, soon be reduced to an army of sixpenny doctors, worse off financially than under the present derided 4*s.* per annum inclusive-of-drugs contract rate. The medical man would receive no payment whatever from those who remained in good health, and but small ready cash fees for each attendance. There are other necessaries besides medical attendance, and a woman's 7*s.* 6*d.* benefit money would not prove sufficient to allow her to pay cash fees for the attention she needed in, say, a case of pneumonia, and the practitioner would very probably have to resume his wearisome task of booking, not the modest half-crown, but the still more modest sixpence.

Many years' experience of ordinary general and contract practice have taught me that the sick man very rarely requires any inducement to get well as quickly as possible, as the difference between his income when sick and when in good health generally provides sufficient stimulus, apart from the irksome rules and regulations to which he is required to submit when on his club.

The object of this Bill is "to provide for insurance against loss of health and for the prevention and cure of sickness, &c.," by enabling him to readily obtain all the medical help he requires in times of illness, in addition to a monetary consideration, small though the latter be.

If your readers will refer to page 1605 of THE LANCET of June 10th they will there find a workable scheme which, in a way, amounts to a combination of their present suggestions with that of ordinary contract practice, including in addition payment by the State for exceptional work, and where (1) the practitioner in attendance has a first call on the patient's sick benefit money to provide small (as good as cash) fees for emergency visits, night calls, and for the treatment of diseases due to misconduct; (2) the State would pay annually a small *per capita* rate, the minimum being 6*s.*, exclusive of drugs, &c., to provide the insured with ordinary domiciliary medical treatment; and (3) the State would act as the insurer, and pay extra for exceptional cases such as epileptics, major operations, consultations, anæsthetics, &c.

Herein the doctor, the patient, and the State are all safeguarded; the doctor against the main evils of contract practice, the patient against the possibility of being crippled by a big bill, whilst the State runs but very little risk of having to pay for an excessive amount of work done, inasmuch as the patient will not indulge in anæsthetics or operations if they can be avoided. Such a scheme would, I feel sure, solve our present difficulties, and there is nothing in the Bill to prevent any Local Insurance Committee giving it a trial. It is certain that Mr. Lloyd George is not fully convinced that £4,500,000 is inadequate to achieve his beneficent objects, and that he is prepared to find a greater amount than he had at first thought would prove sufficient. And unless the much-vaunted nobility of our profession is a misnomer it is our bounden duty to strain a point in order to help him all we reasonably can.

What do we find now? We find thousands of people suffering from all kinds of diseases who receive little or no medical attention, mainly owing to the bogey of payment for medical services: (*a*) the Poor-law doctor being inadequately paid limits his work as much as possible; (*b*) the club or contract practitioner likewise; (*c*) the hospital doctor is getting tired, as he gets no payment whatever from the ever-increasing numbers who claim his attention; (*d*) the private practitioner, having a ledger full of accounts of very little value, is often not desirous of increasing their number. A new social scheme is greatly needed, and the opportunity is at hand. Given adequate payment, with fair conditions of service, there should be a good time in store for every medical man. The consultants will still have their big fees, whilst the hospitals will have but little need to fear. If the Act needs amendment later in these respects, amendment will come.

The Bill will so soon become an Act that it is almost time that the discussion of terms should be taken up in earnest, as, though the Workmen's Compensation Acts provided the worker the wherewithal to pay for any treatment required, yet the profession was caught napping, and the lawyer got the cream, the doctor the skim milk, whilst the worker retained the cow.

Let us not be caught napping again.

I am, Sir, yours faithfully,

J. P. WALKER, M.D. Durh., D.P.H.,
Assistant County Medical Officer for Hants.

Winchester, Dec. 4th, 1911.

To the Editor of THE LANCET.

SIR,—Will you permit me, through the medium of your valuable paper, to express my strong disapproval of the action of the British Medical Association in advising their medical secretary, Mr. J. Smith Whitaker, to accept the post of Insurance Commissioner under the National Insurance Bill whilst the all too reasonable demands of the profession remain ungranted by the Government.

Surely it is time that the profession took some other steps

to defend its rights than those the British Medical Association has adopted. So far I cannot see that the British Medical Association has aided us or advanced our interests in any way, and I would appeal to you, Sir, to initiate some course that the profession may follow with better hope of success in opposing the degradation and robbery which this Bill threatens to impose on us. I am firmly convinced that the right course for us to adopt is to refuse absolutely and entirely to work under the Bill *at all*. Those who accept it and are willing to work under it will find themselves committed to the worst form of contract practice: they will be at the beck and call, night and day, of the insured persons; there can be no incentive to good work, and there will be every inducement to men to shirk in every way careful and painstaking work; and the complete demoralisation of that part of the profession which undertakes this work will inevitably result. If Mr. Lloyd George wishes to appoint salaried whole-time officers, let him do it, but let all self-respecting medical men refuse to coöperate with them or to assist them in any way, and I would urge that consultants refuse to meet them. In my opinion the Government are seeking to finance their unworkable Bill at our expense. Let us be careful that we do not help them.

I hope that all members of the British Medical Association will refuse any further contribution to the Defence Fund until the general opinion of the profession has been taken on the action of the Council. In conclusion I would protest most strongly against the squandering of the funds of the British Medical Association in the issuing of such circulars as that sent out respecting the appointment of Mr. Smith Whitaker on Saturday last, the 2nd inst. If the British Medical Association wished to notify the profession as to their action the notice in to-day's (the 5th inst.) issue of the morning papers would have sufficed, and would have cost the fund nothing. If the profession accepts and works under this Bill I am convinced that they will deeply regret it.

I am, Sir, yours faithfully,

REGINALD THORPE, M.R.C.S. Eng., L.R.C.P. Lond.

Tooting Common, S.W., Dec. 5th, 1911.

To the Editor of THE LANCET.

SIR,—It was apparent at first sight that a direct attack on our rights and privileges was contemplated by the Bill; it sets a disgracefully low pecuniary value upon medical services while claiming to be an improvement upon existing club systems; it imposes compulsory insurance and compulsory medical benefits upon classes who do not desire them, and endeavours to impress medical assistance at sweated and ignominious rates of remuneration; it cheapens medical labour in order that the Chancellor may be bolstered up in his preposterous electioneering catchword, "Ninepence for fourpence and free medical attendance thrown in!" Most unacceptable of all provisions, the insurance net was to gather in all whose incomes did not exceed £160 a year. At this point we reach the crucial pivot round which the whole measure revolves, and it is important to bear this in mind. Mr. Lloyd George persists in trying to insist on an insured income limit of £160 a year; the profession tell him firmly that the wage of any worker claiming inclusion in medical insurance must not, and as far as they are concerned will not, exceed £2 a week. Twenty thousand medical practitioners have pledged themselves not to accept service unless this and five other conditions laid down by a unanimous profession are incorporated in the measure before it becomes law. When the time comes, should the Bill now escape the fate of being dropped by its promoters, we have only to put our pledges into operation in order to make the Act the most ghastly administrative failure in the history of national Parliaments.

As things go now there is every reason to anticipate such an ending, for both general practitioners with an exclusively private practice and those who work only in club appointments are beginning to realise more fully to what an extent their practices would be detrimentally affected under the conditions of an income limit of £160 per annum. In the former case it means that in every household from which a certain medical income is derived every year there would in future be a percentage of compulsorily insured beneficiaries who must either henceforth be attended for the munificent fees of 4*s.* 6*d.* a year per head (about 1*d.* a week!) or else be handed over to an insurance or club doctor for attendance at the same rate. Of course, I recognise and concede the point that if the Local Insurance Committees are properly approached and bargained with later on the profession may obtain from their own gardeners, coachmen, or chauffeurs, elected through the Friendly Societies slightly better terms. But medical men have not yet, I hope, come to that. To pursue the argument, the total contributions of all a private practitioner's insurance beneficiaries, supposing for the moment we undertook that kind of work, would go a very short way towards recouping him on his ledger account for the pecuniary loss sustained through their conversion from private paying patients to State insured semi-paupers.

To put a concrete case. A man, his wife, and two young children would employ their usual medical attendant, while a couple of sons and a daughter earning money as clerks and a governess would come under the State scheme. The medical man would have to pry into their incomes, and then to raise the fine point whether their board and lodging, allowed perhaps by a wealthy father, was to count towards their annual earnings. If the family attendant elects to decline insurance work the clerks and the governess, along with the domestic servant, would be obliged to seek medical aid in a more remote and poorly populated neighbourhood, where in a crowded surgery they will patiently wait their turn cheek by jowl with the flea-bitten pauper and the Saturday-night alcoholic. To the private practitioner, therefore, the annual loss in income may amount to anything between a third and a half of gross receipts. There is no mention in the Bill about compensation for this loss, for which the Government would be clearly responsible, nor yet for the damage done to the saleable value of practices.

And the club doctor. What about him? He at the best is only promised a shuffle of the insured beneficiaries and a re-deal. He will gain some new, he will lose some old, ones, and every few months there will be another shuffle. The rate of pay will be very little better from the wealthy State than that which from force of competition, and by the exercise of his charity, he agrees at present to accept from the Friendly Societies and slate clubs. Should he, as is generally the case, be already overworked and sweated, with more patients than he can reasonably be expected to attend to properly, the Bill, even if it brings him an increase in numbers, will sweat him still more. Similarly his patients will suffer for the same reasons. Besides, the malingering loafer out of work will send for him on every possible and unreasonable excuse, and threaten to report him to his virtual masters on the Local Insurance Committees if he fails, through stress of work or any other reason, to respond promptly to the call. A more sharply defined line would be drawn between the club and private doctor. Nor is it necessary to do more than allude to the extra work, inconvenience, and discomfort for doctors and public alike which would inevitably attend a measure dependent for its operation upon a cumbersome and intricate system of committees, local committees, auxiliary committees, and subcommittees. They are all after-suggestions, small patches of sticking plaster intended to hide the gashes of trenchant criticisms to which the glaring incapacity displayed in the conception of the Bill invited attention. One thing is now quite certain: the profession will have none of it. Another thing is almost equally clear, which is that for some unknown or unpublished reason the mandate entrusted by the whole profession to the British Medical Association has not been as effectively put into operation as the individual members of the profession had a right to expect. It appeared to have been lost sight of by the Council of the Association that they sought and were freely accorded the moral support of the profession at large, irrespective of membership or non-membership, and that their mandate was briefly to amend the Bill in accordance with the generally expressed wishes of all, so as to conform with the cardinal points, the whole six points, and nothing but the six points, or else to drop all negotiation with the Bill, especially after the meeting of the representatives in London, to whom such a magnificent lead had been given by the united practitioners of Lancashire and Cheshire. Well, it is not too late even now, and if the blow delivered by the profession as represented by the British Medical Association has been weakly delivered, the Government have still to meet the resistance which will follow from the body of the profession. When the proper time comes and the Bill emerges

as law in its present form a real blow will assuredly be struck unless 20,000 men have pledged their word for nothing not to take service. Meanwhile, Sir, I feel that I am only voicing the sentiments of hundreds of fellow practitioners when I say that in view of recent events some more responsible leadership than that of the Council of the British Medical Association and one more in touch with the real wants of us all is required.

I am, Sir, yours faithfully,

Trinity-road, S.W., Dec. 5th, 1911. H. B. GREENE.

To the Editor of THE LANCET.

SIR,—I have read with interest the letters of Dr. B. Hall, and I am pleased that at last someone has ventilated the views of the rural practitioner, for hitherto the majority of your correspondents appear to have been resident in London or the suburbs. There appears to be no other way of making known the requirements of the rural practitioner except through the medium of the press, for the branch meetings of the British Medical Association are usually held in the large industrial towns, and the majority of country doctors, many of whom reside several miles from a railway station, have no opportunities for attending those meetings and ventilating their views; consequently the opinions expressed at those meetings are not fairly representative of the profession as a whole.

I hope to avoid the error which so many of your correspondents have committed, in writing for town and country doctors alike. I know very little of the working of a medical practice in a large industrial town. I am a country doctor, and I am absolutely convinced that the *per capita* system of payment is far and away the best and most lucrative in a rural district.

I am medical officer to three village clubs with a total membership of about 250, all adult males. A large majority of the members are agricultural labourers, probably the healthiest class of men in the community. I am paid 5*s.* per member per annum, and the amount of sickness is exceedingly small. On the other hand, about 45 of my clients in one village are members of the National Deposit Friendly Society, whose system (and rate) of payment "for work done" appears to be considered fair and reasonable by many of your correspondents. I find that during the last eight years I have received for those of the 45 who have required medical attendance the sum of £46 3*s.* 6*d.* If those 45 had been members of my clubs, paying me the *per capita* fee of 5*s.* per annum I should have received just £90 for them during the same period. I am also medical officer to a rural post-office, and I find that during the last five years I have received in capitation fees the sum of £12 10*s.* I have a record of the work done under that appointment, and I find that if I had been paid "for work done" at the National Deposit Friendly Society's rates I should have received just 19*s.* I am not appending my name to this letter in case the Postmaster General should not consider my appointment worth continuing. I do not think that any post-office medical officer would willingly exchange the present system and rate of payment under those appointments for one of payment for work done.

I agree with Dr. Hall in thinking that those members of the profession who are crying down the *per capita* system of payment are without experience of it. I cannot say what the effect would be in the large industrial towns, but I am quite sure that in the rural districts where sickness is rare any substitution of a "payment for work done" system in place of the present *per capita* system would mean a serious falling off in income to a large number of country doctors.

There is another point wherein I consider that the British Medical Association is not reflecting the views of the country practitioners, and that is the "free choice of doctor" principle. Anyone who has bought a country practice knows that when an appointment held by a predecessor is not obtained by his successor one year's value of that appointment is deducted from the purchase money; therefore, when an appointment is obtained it is bought and becomes a vested interest. The "free choice of doctor" principle takes away that vested interest without any compensation whatever. I can quite imagine that if it had been Mr. Lloyd George who had introduced the "free choice of doctor" principle all those who have purchased club appointments would have been up in arms against his interference with vested interests, but as it is the British Medical Association instead of Mr. Lloyd George they appear to be silently acquiescing. Probably the principle will be beneficial to urban practitioners, but it appears to me that the country doctor is being sacrificed for the sake of his brethren in the industrial centres.—I am, Sir, yours faithfully,

Dec. 4th, 1911. RURAL PRACTITIONER.

To the Editor of THE LANCET.

SIR,—The sincere thanks of the medical practitioners of this country are due to you for the strong line which you have taken throughout the course of the debate in respect of the Insurance Bill as far as it affects, and will affect, the profession. You have continually and continuously made clear the evils of contract practice which would be crystallised under State authority if that Act comes into operation; and you have ever been on the side of the general practitioner, whose welfare and interests you have always supported in every possible way.

Owing to circumstances which all men of reason in the profession can appreciate, you have not sought to make capital out of the position for your journal; and your pen has been most carefully and wisely restrained, so as neither to engender nor to increase the grave feeling of mistrust which has arisen in respect of the negotiations which have been carried on by the constituted leaders of the profession, who were appointed to look after our best interests, but whose exertions and heavy expenditure of valuable time and money have proved, apparently, so ineffective. At this time of serious crisis I am sure you will use your best endeavours to assist in steadying the position, in preventing a *débâcle*, and in opposing any panicky action which might rend the Association and destroy its powers for good, which under wise direction it must possess.

I am, Sir, yours faithfully,

Dec. 5th, 1911. A. GEORGE BATEMAN.

*** For reasons explained in a leading article we did not publish last week many individual communications with regard to the National Insurance Bill. As correspondents have reproached us for "closing the correspondence," we must point out that no such silly action has been taken, while the views of many of those who wrote to us last week formed the backbone of the editorial comments. We take this opportunity of begging those who address us not to spoil good arguments by mere abuse of those with whom they do not agree.—ED. L.

THE ORIGIN OF CANCER AND THE ORIGIN OF LIFE.

To the Editor of THE LANCET.

SIR,—In his very interesting lectures on Unicellula Cancri Sir Henry Butlin has shown in a striking manner the parallelism that exists between the life and development of different varieties of cancer cells and that of many of the protozoa. He seeks to show, in fact, that "the carcinoma cell is an independent organism like many a protozoon," that it is "a complete animal organism in itself"; and he is now prepared to maintain this view, "not only for carcinoma, but for every variety of malignant disease."

Looking to the generally admitted facts that, as Dr. Bashford says, "cancer arises *de novo* in each individual attacked," and that it occurs "by a transmutation of functional somatic into cancerous cells," as was originally pointed out by Farmer, Walker, and Moore in a paper communicated to the Royal Society on Dec. 7th, 1905, together with the many analogies dwelt upon by Sir Henry Butlin, there seems very much to be said in favour of his view.

To some essential points in his statement, however, I must demur. While all students of cancer are now practically agreed that cancer cells are derived from the tissue cells of the part in which they take their origin, this cannot correctly be spoken of as a kind of process "which has never hitherto been imagined." It is exactly the kind of process known as "heterogenesis," many examples of which I have described and illustrated in my "Studies in Heterogenesis" (1903), and it is a process which has been defined as "the production from the substance of organisms or their germs of alien forms of life."[1] It is true the transmutation here does

[1] An illustrated description of one of the most notable examples observed by me may be seen in the Proceedings of the Royal Society, vol. B, 76 (1905), pp. 385-392.

not lead to the production from the altered tissue cells of what would be generally admitted to be independent living organisms; and certainly the process cannot possibly be cited as an illustration of "the origin of life." Life was already existent in the tissue cells—their mode of life has only been changed; a process allied to heterogenesis has occurred.

I cannot, therefore, agree with Sir Henry Butlin when he goes on to say: "The host in which it dwells has fashioned it out of its own tissues, and, to borrow the figurative language of Scripture, the Creator has breathed into it the breath of life. ..... After ages of past and present civilisation, during which searchers and philosophers have sought to explain the origin and nature of life, we have come no further than this."

The true origin of cancer, as I maintain, is related to heterogenesis, and not, as he thinks, to the still more mysterious problem to which he refers; nor can it fairly be said that in regard to the solution of this problem we have come no further than the establishment of this particular instance of heterogenesis.

Probably Sir Henry Butlin has never studied my little book entitled "The Origin of Life" (1911), where experiments are described in which multitudes of independent living organisms have been taken from tubes (previously sealed hermetically) containing certain saline fluids which had some months before been heated for periods varying from 5–20 minutes to temperatures ranging from 125–145° C., while most of the organisms that had been produced within the tubes were such (torulæ and micrococci) as are known to be killed by exposure in fluids to 60–70° C. for a few minutes. Such experiments surely take us much further towards the solution of "the great enigma" than does any mere proof of the heterogenetic origin of cancer cells—however much they may be shown to be related to many of the protozoa.

I am, Sir, yours faithfully,

H. CHARLTON BASTIAN.

The Athenæum, S.W., Dec. 2nd, 1911.

THE UNICELLULA CANCRI.

To the Editor of THE LANCET.

SIR,—Sir Henry Butlin has stated the case for the unicellula cancri with his wonted lucidity and force, but I venture to question whether he has reduced his thesis to the simplest terms. Is it not a fact that, viewed from the broad biological standpoint, all the cells of multicellular organisms (metazoa) are protozoa? Are not the aggregated cells constituting the metazoa and the segregated cells known as the protozoa all separate, individual animal organisms bathed in a fluid from which they extract their oxygen and nutriment, and to which they yield their excreta? In the higher metazoa some of these cells—e.g., muscle cells and neurons—are highly specialised and have lost the power of multiplying: such never give rise to cancer cells. Others—e.g., epithelial, endothelial, and connective tissue cells—are less specialised and retain the power of multiplying: there is no doubt that it is from these that the cancer cells are derived. Do we, however, by labelling such cells "parasitic protozoa," "unicellulæ cancri," advance our knowledge?

The cancer cells are manifestly cells which have thrown off their allegiance to the body politic and become rebels. The whole problem of cancer is summed up in the question, What is the cause of this act of rebellion?

I am, Sir, yours faithfully,

Wimpole-street, W., Dec. 3rd, 1911. HARRY CAMPBELL.

PHYSICAL TRAINING IN SECONDARY SCHOOLS.

To the Editor of THE LANCET.

SIR,—I have read with great interest the article on "Physical Training in Secondary Schools," which appeared in your issue of Oct. 21st (p. 1150), and heartily endorse the contents thereof, especially the remark that "the gymnastic teacher should possess expert training and should be a member of the school staff." THE LANCET also points out that, whereas there are many expert lady teachers of Swedish gymnastics, there is a great dearth of expert male instructors. The reason for this state of affairs is that several excellent institutions exist for the teaching of lady students of gymnastics, but that there have hitherto been no similar institutions for male students. An inquiry into the arrangements for teaching gymnastics in other countries reveals the striking fact that the subject has been made a university one in a considerable number, and that special schools, controlled by the State, exist for the teaching of it. Let me quote some examples:—

Sweden.—The Royal Central Gymnastic Institute, founded at Stockholm in 1813, provides a course of study of three years' duration, which includes all the branches of Ling's system. The first two years are devoted to educational and military gymnastics, and the course of instruction includes anatomy (dissections are compulsory), applied anatomy of gymnastics, and physiology. The third year is devoted to medical gymnastics, some theoretical work in which has already been gone through in the second year. Examinations are held at regular intervals, and after passing the final examination the title of gymnastic director is conferred upon the candidate. The institute is under medical supervision, and the chief teachers have the title of Professor and rank as such.

Belgium.—The Institute Supérieur d'Éducation Physique attached to the University of Ghent was duly opened in 1908. After three years' training in physical education the candidate receives the title of Licentiate in the Science of Physical Education. Later on, after further examination and the presentation of a thesis which the licentiate must defend, he may obtain the title of Doctorate in the Science of Physical Education. The syllabus of the course seems to show that it is very complete.

In Austria there are State institutions in Vienna, Prague, and Gratz. Similar institutions are to be found also in Bavaria, Prussia, Saxony, and Norway. I see, also, that physical education is included in the curriculum of the University of Wisconsin. In Denmark the subject of gymnastics has quite recently been made an optional subject for the degree of B.A., B.Sc., and diplomé as school teacher.

In England gymnastics is, I regret to say, neither a university subject nor one which interests the medical profession as a whole. Indeed, I have no hesitation in saying that a medical man who opened a gymnasium for educational gymnastics would be shunned by his colleagues. Even the medical supervision of school gymnastics is almost an unknown factor in this country. This is not as it should be, and I consider that THE LANCET exactly states the case when it says that there should be a close coöperation between the medical officer and the gymnasium instructor. The fact cannot be denied that physical education largely enters into the subjects of hygiene and prevention of disease, and that overdoing or misuse of it leads to pathological conditions, especially in school children. Under these circumstances I feel that many will agree with me when I suggest that physical education be made one of the subjects of the ordinary medical curriculum.

The state of affairs at present is that gymnastic classes are held in the vast majority of the schools by people who are not competent to take them, and as matters stand now children with adenoids, with spinal curvatures, with weak chests are all performing the same gymnastic exercises together with healthy children, and they are doing so under the direction and control of a teacher who is incapable of judging whether he is doing good or harm thereby. Outside schools we have an equally deplorable state of affairs in many directions. The advertising quack who does a large and flourishing trade in so-called scientific gymnastics, with or without some special apparatus, and who boasts of self-arrogated invention and discovery, need only be mentioned.

The only way to improve matters is for the medical profession to take them into their own hands, for until they do so no change can be effected, and I sincerely hope this will be done ere long. In connexion with this, however, I should like to point out that an institute for teaching educational gymnastics will be open in this city in Marylebone in the immediate future. The object of the institute is to give thorough instruction, theoretical and practical, in the science of physical education on the basis of the Swedish system of gymnastics. The course of training will follow as closely as possible the lines upon which the Royal Central Institute at Stockholm is working, with such modifications as occasion requires. The syllabus of the Board of Education will be thoroughly studied and the requirements of the Board will be

met. Anatomy, physiology, theory of movement, hygiene, &c., will be included in the syllabus. The practice of gymnastics will be learnt and taught by students, for which latter purpose classes of school children will be available. The course of training will be of two years' duration, but is so arranged that the first year will form a complete course by itself, fitting the student for posts in elementary schools. The second year's course will enable the graduates to take full charge of any school of whatever standing. A special feature of the institute will be that facilities will be afforded to medical men to gain information and to critically observe the work done.—I am, Sir, yours faithfully,

EDGAR F. CYRIAX, M.D. Edin.

Craven-hill, W., Dec. 2nd, 1911.

THE PRESCRIPTION OF TUBERCULIN.

To the Editor of THE LANCET.

SIR,—In the courteous review of our work "Diseases of the Lungs," which appeared in THE LANCET of Nov. 25th, the important question is raised as to whether tuberculin should be prescribed in fractions of a cubic centimetre or milligramme. Before advocating the prescription and dispensing of the remedy in cubic centimetres we went carefully into the matter with Messrs. Squire and came to the conclusion that for accuracy and facility of dispensing the volumetric measurements were the best.

We beg to submit the following memorandum which we have received from Mr. P. W. Squire on the subject.

We are, Sir, yours faithfully,

R. DOUGLAS POWELL.
P. HORTON-SMITH HARTLEY.

London, Dec. 4th, 1911.

[ENCLOSURE.]

The writer of the review in THE LANCET of Nov. 25th, 1911, is evidently under the impression that he would be obtaining the same amount of solid substance whether he ordered a fraction of 1 gramme or of 1 cubic centimetre of tuberculin, but, of course, this is not so, because 1 cubic centimetre of the bacillary emulsion, for example, weighs 1·114 grammes, and this difference will have to be allowed for in each individual dose of dilution if it were ordered by weight. This introduces an unnecessary factor and an altogether needless amount of trouble. So far from simplifying matters prescribing "by weight" would be introducing complications. When prescribing tuberculin by measure (in cubic centimetres) it diminishes any possibility of a misunderstanding as to whether the figures relate to the liquid itself or to the solid substance it contains. It is, for instance, a simple matter to recollect that 1 cubic centimetre of emulsion represents 5 milligrammes of solid matter, but not so easy to recollect that 1·114 grammes of the liquid is equivalent to the 5 milligrammes. The fact that the emulsion is standardised to 1 cubic centimetre indicates that it is intended to be prescribed "by measure" and not "by weight." It is also much more convenient to work a fluid "by measure" than "by weight."

P. W. SQUIRE.

THE VALUE OF THE ALBUMIN REACTION IN TUBERCULOUS SPUTUM.

To the Editor of THE LANCET.

SIR,—The recent announcement of Lesieur and Prirey[1] as to the presence of albumin in tuberculous sputum seemed to afford a valuable and simple aid to the diagnosis of phthisis. Being temporarily in charge of the Birmingham Municipal Sanatorium at Yardley-road at the time of the article in THE LANCET[2] I took advantage of the opportunity to test the value of the reaction. The author's technique was adhered to throughout, and in the final stages nitric acid was used in preference to the heat method as being more delicate and accurate.

I was able to examine the sputum of 55 patients, of whom 39 had tubercle bacilli present and so were definitely tuberculous. Of these 39 albumin was present in 21, or 53·8 per cent., and absent in 18, or 46·2 per cent., so that the test appears to have no diagnostic value. No very extended conclusions can be drawn from such a small number of cases, but there appears to be a greater likelihood of the reaction being given if tubercle bacilli are present in the sputum, for of the remaining 16 cases which did not present tubercle bacilli, yet which otherwise showed all the signs of phthisis, and were, I think, undoubtedly tuberculous, only 4 gave the albumin reaction and 12 were negative.

I am indebted to my friend, Dr. W. H. Wynn, the visiting physician, not only for permission to publish this, but also for the interest he took in the matter, and to Miss D. Dawson for her assistance in the laboratory.

I am, Sir, yours faithfully,

H. S. GETTINGS, L.R.C.P. & S. Edin.,
L.F.P.S. Glasg., D P.H. Birm.,
Assistant Medical Officer, Portsmouth Municipal Tuberculin Dispensary.

Dec. 1st, 1911.

[1] Paris Médical, 29, vol. iv., 1911.
[2] THE LANCET, Oct. 14th, 1911, p. 1084.

A SPHYGMOGRAPHIC METHOD FOR THE ESTIMATION OF SYSTOLIC AND DIASTOLIC BLOOD PRESSURE.

To the Editor of THE LANCET.

SIR,—Mr. S. G. Longworth correctly remarks that in current descriptions of the Korotkoff method for the determination of the diastolic blood pressure this is read off "at the point at which a distinct change in the intensity of the sound occurs." This alteration in intensity, pitch, and duration of the sound may be phonetically represented by *swish* to *dup*: the sound *dup* gradually increases to a maximum and then dies away as the air escapes.

The maximum intensity of the sound is taken as representing the diastolic pressure, but it is not always easy to determine this point, and different observers when examining the same patient frequently give different results, and, moreover, the sound not seldom continues equally loud over considerable differences in pressure.

I take the disappearance of the sound as the standand because the event can be certainly and readily determined, and thus has value for comparative observations on the same case. The reading so obtained is perhaps lower than the true diastolic pressure, but the difference would appear to be small. "Miss Allen and Mr. Engle, in the study of the blood pressures of 35 patients in the Johns Hopkins Hospital, found that the readings by the Korotkoff method never differed more than 2–5 mm. from control determinations made at the same time with the Erlanger apparatus, though they took the minimal pressure at the point at which the second sound absolutely disappeared."[1]

I am, Sir, yours faithfully,

Southall, W., Dec. 4th, 1911. J. DAVENPORT WINDLE.

SUTURE OF THE ABDOMINAL WALL WITHOUT BURIED SUTURES.

To the Editor of THE LANCET.

SIR,—In April, 1906, I described in THE LANCET[2] a double-loop suture which I have reason to believe has proved useful. Recently I have experimented with another form of suture which fulfils similar conditions and possibly has some advantages. The double-loop suture had been used by several surgeons before my description of it, and this may be the case with regard to the method I wish to describe.

The advantage of the new method is that, having a single loop, it is more easily removed, and also that it draws the deep parts together with more lateral strain, thus approximating to the action of a buried suture.

A curved needle armed with silkworm gut is passed from without at some distance from the edge of the incision and through a layer of deep tissues on the opposite side; it is then repassed through the skin somewhat in front of the first puncture. The same process is repeated from the other side, the loops being interlocked. They may be tied independently, or one end may be left long and tied to the corresponding long end of the other loop.

These sutures act as "tension sutures," and a continuous horsehair is all that is required to complete the union. In removing the sutures it is best to cut both sides, otherwise the interlocking makes removal more difficult.

I am, Sir, yours faithfully

J. B. PIKE, M.R.C.S. Eng.,
Honorary Surgeon to the Loughborough Hospital.

Loughborough.

[1] Hirschfelder: Diseases of the Heart and Aorta.
[2] THE LANCET, April 7th, 1906, p. 967.

MUNICIPAL HONOURS.—Mr. R. J. Ryle, M.D. Oxon., M.R.C.S. Eng., J.P., was on Nov. 22nd elected a member of the Brighton town council by a majority of 190 votes over his opponent.

MANCHESTER.

(FROM OUR OWN CORRESPONDENT.)

Manchester Royal Infirmary and the Insurance Bill.

THE chairman of the board of management has sent a letter to all Members of Parliament for the district from which the infirmary patients are drawn stating that in the opinion of the board the Insurance Bill, as it now stands, will seriously affect the financial position of voluntary hospitals, impairing their efficiency and capacity for good, so that insured persons will run grave risks of being deprived of care and attention in cases of serious illness, and urging that hospital benefit as well as medical and sanatorium benefits should be provided by the Bill.

Jewish Kitchen in Royal Infirmary.

After a good deal of correspondence and discussion the authorities have decided to establish a separate Jewish kitchen, conditional upon the Jewish community defraying the expenses, providing the utensils, and employing the cook.

The Cancer Hospital and the Causes of Cancer.

The annual meeting of the Christie (Cancer) Hospital was held on Nov. 27th. This institution, besides offering treatment and providing a home for acute cases, undertakes the study of the disease. The committee, in coöperation with the Pilkington trustees, has this year appointed Dr. C. Powell White as pathologist. During the year there were 101 in-patients and 41 out-patients. The subscriptions fell from £424 to £377. Many patients are admitted in a late stage of the disease for the alleviation of their suffering during the close of their lives. The death-rate from cancer seemed to be increasing. In Manchester last year 1 in every 17 deaths in the city was due to cancer, the total being 660 out of 11,374 deaths. For the first time in the history of the hospital during its 19 years' existence the number of men patients has been nearly as large as that of women. Dr. Powell White dwelt on the need for a fully equipped laboratory, as well as for an inquiry into the habits, occupations, and hygienic surroundings of the patients. He pointed out that the parts of the body most liable to disease varied in different countries, and in many cases the variations could be traced to specific habits. In Europe and in all temperate countries cancer of the stomach was the commonest form. In Travancore, in the south of India, where the natives chewed the betel-nut, the cancer most commonly affected the mouth; while in Cashmir, in the north of India, where the natives carried charcoal stoves under their clothes to keep them warm, the parts of the body that came in contact with the stoves were most affected.

A Great Water Scheme.

The Ashton, Stalybridge, Dukinfield, and Mossley district waterworks committee has undertaken a tremendous piece of work in relation to their water-supply. Over £1,000,000 have been spent in connexion with the Chew Valley scheme, which will be completed a few months hence, affording provision of water for many generations to come, with no risk of shortage of water even in the longest drought.

Sewage Purification: £40,000,000 Wasted Annually.

Dr. Grossmann, in a paper read on Dec. 1st before the Manchester Section of the Chemical Industry, stated that if all the valuable manurial constituents which are present in sewage could be utilised on the land they would represent a value of somewhere about £40,000,000 annually. The water-carriage system at present in use was the most wasteful system on economic grounds, but it was recognised that its advantages from a hygienic point of view should be such as to outweigh commercial considerations. The sewage at the sewage works, consisting of a liquid and solid part, underwent further purification; the liquid part ultimately found its way into the rivers and sea, and if the purification was thoroughly carried out would fulfil all anticipations with regard to the public health. The disposal of the solid part, however, was still a danger to the community. If the "sludge" was carried out to the sea there was danger of infection to sea life, such as oysters. Moreover, part of it might be washed back to places on the coast, as had actually occurred at several seaside places. If dumped on the ground it created a nuisance, and if used on land for farming purposes there was danger of infectious diseases being communicated to cattle and human beings from grass and grass crops on such land. The value of sewage sludge, calculated on the dry substance contained in it, was only 10*s.* a ton, and it did not pay the farmers to use it, except those in close vicinity to the works, on account of the cost of carriage. Nor could it be profitably used as a producer of illuminating gas. Until, therefore, the disposal of sludge was effected by sound hygienic methods there was still danger to the community. No process for the disposal of sewage sludge could be considered satisfactory which did not return the manurial constituents contained in it to the soil in a thoroughly sterilised condition, and sludge could never become a valuable manure unless it was previously freed from the greasy matters arising from soapsuds and other fatty substances which in the sewers became mixed with the sludge and prevented its manurial constituents from being assimilated by the plants.

Dec. 4th.

LIVERPOOL.

(FROM OUR OWN CORRESPONDENT.)

Public Health and Infant Mortality.

THE second lecture of a series on the Civic Life of the City" was given at the Friends' meeting-house by Dr. E. W. Hope, the medical officer of health, on Dec. 3rd, the subject of the lecture being "The Public Health." He showed that the rate of mortality of all great centres of population was largely contributed to by infant mortality, and any causes, therefore, which directly or indirectly lessened the amount of attention paid to infants added to that mortality. Privation, for example, which deprived the nursing mother of food, immediately affected the infant, who then readily fell a victim to adverse circumstances. The subject had been recognised as one of such vital importance that in Liverpool and other places the health committees had established special committees whose sole function was the preservation of infant life. Dr. Hope then drew attention to two important Acts of Parliament specially designed to safeguard infants—namely, the Midwives Act of 1902, which provided for the training, regulation, and supervision of midwives, and the Notification of Births Act, which enabled visits to be paid to houses where such visits were needed. Various structural alterations and improvements relating to housing, hospitals, &c., were then described by Dr. Hope, who also dealt in an interesting manner with the water-supply of the city, maintaining that it was the best possible. The lecture was illustrated by means of lantern slides and was cordially appreciated.

Wireless Telegraphy at the University of Liverpool.

Through the generosity of Sir William Hartley, the University will shortly be able to receive messages by wireless telegraphy. Sir William Hartley has generously undertaken to defray the cost of a complete installation at the University. Professor Marchant, the head of the department of electrical engineering at the University, will control the installation. Sir William Hartley is to be congratulated upon his public spirit and great generosity, which will prove of incalculable advantage to teaching and research at the University.

Liverpool School of Tropical Medicine and Yellow Fever.

When the late Sir Rubert Boyce collected funds to form the Yellow Fever Bureau at the Liverpool School of Tropical Medicine he contemplated the despatch of an expedition to some country infested with yellow fever to make further research into its cause and treatment. In pursuance of this object the school has now decided to send out Dr. Harold Seidelin, scientific secretary of the bureau, to conduct some new and important researches into the disease, in Yucatan, Mexico. Dr. Seidelin leaves for New York by the *Mauretania* on Saturday, Dec. 9th.

Garston's New Accident Hospital.

The finance committee of the Liverpool city council has decided to offer the executive committee of the proposed new accident hospital at Garston £7500 towards the erection of a new hospital, and this proposal was put before a meeting of the executive committee held on Nov. 29th. Some time ago when the matter was first mentioned, the Liverpool city council offered £5000 towards the new hospital; but

this was not considered sufficient to free Liverpool from its obligation, which was incurred at the time of the incorporation of Garston, and a petition was extensively signed by the residents of Garston in support of Councillor Rawlinson's amendment that £10,000 should be granted by the city council. This was defeated by the council, and the matter has since been brought up, as under the will of the late Sir Alfred Jones the committee should receive £10,000 towards the building and maintenance of a new hospital, which is urgently needed. The committee decided to accept the offer of £7500, if the city council sanctioned the proposal of its finance committee.

Bootle Borough Hospital and National Insurance Bill.

At a meeting of the committee of the Bootle Borough Hospital the following resolution was carried unanimously:—

That the general committee of the Bootle Borough Hospital is unanimously of the opinion that the National Insurance Bill is incomplete unless it provides for the hospital treatment which insured persons must have if their medical needs are to be covered by the Bill.

In passing the resolution the committee is of the opinion that under the operation of the Bill in its present form the hospital will suffer loss of annual income to the extent of about £1000, and will still be called upon to provide for the same number of in-patients, with a very slightly reduced aggregate of out-patients, out of its considerably reduced income. The committee desires the recognition of voluntary hospitals which are largely dependent for their incomes on workmen's contributions, and who obtain treatment for themselves and families in time of need.

Dec. 4th

SCOTLAND.

(FROM OUR OWN CORRESPONDENTS.)

New Lectureship for the University of Aberdeen.

THE late Mr. John Thomson, printer, of the Aberdeen University Press, Limited, in his will instructs his trustees on the death of his wife to pay to the University Court of Aberdeen the sum of £2000 to found and maintain a lectureship on "The Structure and Functions of the Human Body," in order "to afford information to young persons as to the due care of the body in early life with a view to its healthy development and the prevention of its abuse by intemperance, &c." The lectureship is founded in memory of the founder's son, the late John Farquhar Thomson, M.A., who was first bursar in his year in arts at the University of Aberdeen. The University Court is instructed that a member of the University teaching staff shall yearly be appointed by them to hold the lectureship, the lectures to be delivered during the winter session of each year and to be of such number as the University Court, on the recommendation of the Senatus, shall fix when making the annual appointment. The lecturer is to be paid the full revenue of the said £2000, the lectures are to be delivered in the University Buildings at Marischal College, and are to be open, without fee, to the public.

Alleged Premature Dismissal from Hospital.

In the Dundee Sheriff Court on Nov. 27th, Sheriff Neish issued his interlocutor in an important action brought against the Dundee town council. The pursuer, a cabinet-maker, as an individual and as tutor and administrator-in-law to his children, sued the town council for £60 as damages by reason of their having, he alleged, discharged his daughter from the King's Cross fever hospital, Dundee, before the fever, from which she was suffering, had run its course. In consequence of her alleged contagious and dangerous condition three of the pursuer's children shortly afterwards took infection from her and suffered from illness. The town council denied negligence and pleaded that the action was irrelevant and incompetent. The sheriff-substitute found that the pursuer's averments were not relevant and dismissed the action, finding the pursuer liable in expenses. In a note, his lordship said that pursuer did not aver that the medical officer was defenders' servant. All he said was that the defenders were responsible for their medical officer. He did not think it could be maintained that the medical officer was the servant of defenders. His appointment was regulated by the Public Health (Scotland) Act, 1910. His duties were not prescribed by defenders, but only with the approval of the Local Government Board, and he could not be removed from office except by, or with the sanction of, that Board. In the sheriff's opinion the defenders had performed the duty incumbent on them in a question such as was raised in the case at issue. They had a competent and qualified man as medical officer, and the Local Government authority could control the medical officer's administration. The result was that pursuer had not set forth any relevant grounds for his claim, and dismissal of the action appeared to be the appropriate consequence.

Dec. 5th.

IRELAND.

(FROM OUR OWN CORRESPONDENTS.)

The Council of the British Medical Association and the Insurance Bill.

THE action of the Council of the British Medical Association in advising its medical secretary, Mr. J. Smith Whitaker, to accept the deputy chairmanship of the Insurance Commission is giving rise to comment in Irish medical circles. It is thought inconsistent for the Council, while stating that the "Insurance Bill, if it becomes law in its present shape, is fraught with danger to the public and to the medical profession," to recommend its chief executive officer to accept office for the purpose of administering the Bill. The Council is handing over its chief of staff to the opposition. Already the profession in Ireland was losing confidence in the British Medical Association, and this action of the Council is likely still further to diminish its confidence. It is felt that while the Council had no right to control Mr. Smith Whitaker's actions, it should not have seemingly recommended his appointment. In view of its action it is difficult for the Council at a later date, if deemed necessary, to advise the profession not to accept employment under the Bill. On the other hand, some few of the profession consider that under all the circumstances it was right to accept the offer, as it indicated that Mr. Lloyd George was holding out an olive branch to the medical profession. Looking at the situation calmly and dispassionately, the moderate men in the profession believe that the Council of the British Medical Association would have shown more diplomatic, if not indeed more legal, acumen had they told their official that he must accept or decline the position solely as a private individual and without seeking their approval; or, better still, had they withheld their own views until they had consulted the rank and file of their members through the Representative Body. To say that there was no time to do this is no adequate excuse, for the members of the Representative Body could have been summoned for Dec. 6th, just as easily as the Council was, and as they had been consulted in other matters in the previous negotiations why should they not have been in this? There is great fear that the action of the Council may injure the movement for welding the medical profession together. So far as Ireland is concerned, there is also a strong feeling that much more might have been done to secure medical benefits, and this is emphasised by the Dublin Trades Council which, on Dec. 4th, passed a resolution emphatically condemning the Irish Parliamentary Party "in their action in depriving Irish workers of the medical benefits of the Insurance Bill."

Appointment of an Assistant Medical Officer of Health of Dublin.

The corporation of Dublin has appointed Mr. M. J. Russell assistant medical officer of health of Dublin, to give his whole time to the duties of the office. The superintendent medical officer is not a whole-time officer, nor has he previously had the assistance of any medical man other than that given by the dispensary medical officers in their own districts.

Pigs and the Public Health.

The Dublin corporation at its last meeting adopted an important report of its public health committee dealing with the keeping of pigs in the city. A disregarded by-law of the corporation provides that pigs shall not be kept anywhere in the city within 50 feet of a dwelling. There are at present in Dublin some 500 piggeries, containing about 5000 pigs, about three-fourths of these piggeries, according to the public health committee, being situated within the 50 feet limit. To avoid interfering with the important industry of pig-rearing, the committee recommended, and the corporation agreed to, the suspension of the by-law. The

Local Government Board has expressed its disapproval of this step, while the council of the Dublin Sanitary Association has expressed the opinion that the keeping of swine under such conditions necessarily constitutes a nuisance within the meaning of the Public Health Act. The public health committee, however, is "under the impression that pigs kept in scrupulously clean surroundings are not any source of danger to public health." But what guarantee has the public that the piggeries are kept in even moderately clean condition?

A Bishop on the Election of Medical Officers.

The Most Rev. the Bishop of Ardagh has addressed a letter to the members of the Longford board of guardians in which he asks the guardians to elect no candidate that fails to prove (*a*) high-class medical learning, as shown in diplomas and testimonials; (*b*) morality, especially social virtue and sobriety; and (*c*) a kind and gentle disposition in dealing with the poor; and in the second place to give the appointment to the candidate who possesses the above qualifications in the highest degree.

Claim of Privilege by Medical Witness Allowed.

A claim of privilege was successfully made by a medical man in a magisterial court at Bray last week. Dr. C. Brew, who was summoned as a Crown witness in the case of a young woman charged with the murder of her child, on being sworn, said that anything he knew about the girl as her medical attendant was of a purely confidential nature and he considered that he was privileged not to give evidence in regard to it. District Inspector Molony submitted that Dr. Brew had no right to claim privilege in the case of homicide or infanticide. The state of the defendant was distinctly relevant to the point at issue. The magistrate, however, held that Dr. Brew was privileged not to give evidence, and gave him leave to withdraw.

Health of Belfast.

The report of the medical officer of health on the health of Belfast between Oct. 15th and Nov. 18th, presented to a meeting of the city council on Dec. 1st, showed that 267 cases of infectious disease had been notified, viz.: 4 of typhus fever, 15 of typhoid fever, 159 scarlet fever, 4 of simple continued fever, 44 of diphtheria, 2 of membranous croup, and 39 of erysipelas. Also 39 cases of pulmonary tuberculosis had been notified. During this period the death-rate of Belfast from all causes was 16·4 per 1000, from chest affections 5·4, and from zymotic diseases 1·2. The cases of infectious disease notified are 55 in excess of the number notified in the preceding month, and 51 in excess of the number notified in the corresponding month of 1910. This increase is mainly due to scarlet fever, the number of cases of which is 59·55 per cent. of the total cases notified.

The Water-supply of Belfast.

At a meeting of the Belfast Association of Engineers held on Nov. 23rd curves of the rate of increase of population of Belfast and of the consumption and supply of water of the city for the past 20 years were shown, and the probable future requirements for the next 10 years were indicated. These curves demonstrated the accuracy of the estimate of Mr. Macassey, late engineer of the Water Board, who in his report to the Water Commissioners of Belfast in 1891 showed the necessity for constructing a reservoir in the Silent Valley of the Mourne Mountains and having it in full operation in 1907. He calculated that in 1906 the consumption would almost equal the supply of 16½ million gallons per day drawn from the Woodburn and Stoneyford reservoirs, with the additional 3 million gallons brought down in the Mourne conduit. Further, it was established that had the Water Commissioners acted on the advice of their late engineer the city would not now be depending on a restricted supply. A critical stage has been reached, for the demand in Belfast has exceeded the supply by about 2 million gallons a day, and the city is dependent on wet weather to fill the reservoirs and keep them full. It is stated that plans are being got ready by the Commissioners for constructing a new reservoir, but it will take four or five years to complete it, and if the population of Belfast goes on increasing a second reservoir will be needed in 1921, by which time the consumption will have increased to 18 or 20 million gallons a day, and this would mean financially an expenditure of perhaps another £1,000,000. The general feeling of the engineers at this meeting was that some quick scheme should be temporarily installed, and they favoured pumping the water of Lough Neagh, and with a few miles of 24 in. pipe connecting this up to the Stoneyford system, which could deliver 4½ to 8 million gallons a day to Belfast at a fraction of the cost of the Silent Valley reservoir. Professor W. StC. Symmers was quoted to the effect that the sterilising effect of the sun's rays on the vast expanse of Lough Neagh was quite sufficient to render its waters fit for drinking purposes. What is good enough for Lurgan, with a 17·5 death-rate, should be safe for Belfast, with a death-rate of 18·6.

A New Medical Guild in Belfast.

A circular has just been issued to the general practitioners of Belfast for a preliminary meeting to be held in the Medical Institute on Dec. 7th for the purpose of organising a union or guild for the object of promoting and safe guarding the interests of all.

Epidemic Disease in Dundalk.

On Nov. 28th, at a meeting of the Dundalk urban council, reports received from the medical officers showed a marked increase in the occurrence of erysipelas, scarlet fever, enteric fever, and especially of diphtheria, of which since the last meeting 10 cases had been notified. No cause has so far been found for the epidemic, but it has been decided to summon weekly meetings of the sanitary committee during the outbreak, and to call a special meeting of the urban council to consider a report on the sanitary arrangements from the Local Government Board's medical inspector.

Dec. 5th.

PARIS.

(FROM OUR OWN CORRESPONDENT.)

The Consumption of Alcohol in 1910.

THE Ministry of Finance has just prepared the statistics of the production and consumption of alcohol during the year 1910, and as I have often remarked in this column statistics of this class do not make pleasant reading, for the use of spirituous liquors is steadily increasing in France. In the year 1910 the consumption exceeded that of 1907 by 110,000 hectolitres of pure alcohol—an increase of nearly 10 per cent. in four years. This, moreover, is only the quantity recorded for fiscal purposes and there will have to be added to the foregoing figures the amounts used by the *bouilleurs de cru*. However that may be, the average consumption of pure alcohol per head of the population, as recorded for fiscal purposes, was 3·59 litres last year, 3·46 litres in 1909, 3·44 litres in 1908, and 3·31 litres in 1907. The departments in which the use of spirituous liquors is most prevalent are here shown in the order of the average officially recorded consumption per head of the population: Seine Inférieure, 12·11 litres; Calvados, 9·38 litres; Somme, 9·36 litres; Eure, 9 litres; Pas de Calais, 8·44 litres; Oise, 7·92 litres; Manche, 7·28 litres; Eure et Loir, 7·15 litres; Aisne, 6·71 litres; Mayenne, 6·37 litres; Orne, 6·27 litres; Côtes du Nord, 5·64 litres; Finistère and Ille et Vilaine, 5·46 litres; Seine et Oise, 5·18 litres; Sarthe, 4·80 litres; Ardennes, 4·77 litres; Nord, 4·51 litres; Seine et Marne, 4·43 litres; Marne, 4·34 litres; and Seine, 4·25 litres. In the other departments the average consumption per head is less than 4 litres. In Gers it is only 0·70 litre; in the Landes, 0·81 litre; in Corrèze, 0·84 litre; in Vendée, 0·85 litre; in Lot et Garonne, 0·88 litre; in Lot, 0·92 litre; in Dordogne, 0·95 litre; and in Tarn et Garonne, 1·01 litre. As regards the relative consumption in town and country, the average per head of the population was 2·97 litres in the country and 4·96 litres in towns.

A Question of Medical Fees.

The seventh chamber of the Tribunal of the Seine has recently decided a legal question relative to medical fees under the following circumstances. On the recommendation of his ordinary medical adviser a gentleman had his son examined by Professor Duval, who thereupon said that an immediate operation in a private hospital was necessary. The operation was successful and the father of the patient paid the surgeon's fees. The ordinary medical adviser at the same time claimed 1200 francs for attendance on the patient before the operation, for being present at the operation, and

for visiting the patient up to the time of his discharge from the hospital. The father offered 800 francs, saying that as he had not asked his ordinary medical adviser either to be present at the operation or to visit the patient afterwards, he did not, in fact, owe anything under these two heads. The tribunal gave judgment in favour of the father, with the remark that attending at an operation and paying visits without the request of the family did not render the family liable to pay fees for such attendance and visits.

Monument to Dr. Guinard.

Last summer I referred in this column to the murderous attack on Dr. Guinard, one of the surgeons of the Hôtel Dieu—an attack which unfortunately caused his death. Immediately afterwards a subscription list was opened for the purpose of erecting a monument to him in the court of the Hôtel Dieu, probably on the very spot where he fell. The subscriptions already amount to 13,000 francs, and it is hoped that 20,000 francs may be collected, for there are several medical societies which have not yet signified their intention of contributing; it is also expected that the General Council of the Seine and the municipal council will make liberal grants.

Workmen's Associations and Tuberculosis.

In the belief that he was acting for the best M. Delcassé, the Minister of Marine, on Oct. 20th issued a circular to the ports having for its object the retirement of workmen suffering from tuberculosis. Compensation was to be granted to men discharged under these circumstances at the rate of 27 centimes per day for patients in the first stage of the disease, 54 centimes for those in the second stage, and 81 centimes for those in the third stage. The scale of compensation was not objected to, but the workmen's association at the port of Brest held a meeting and decided to agitate against the discharge of men suffering from tuberculosis and against the dispersal of men on half pay. Other similar associations followed this example. The workmen at Rochefort issued an appeal in which they said that if any of them were tuberculous they had become so in the service of the State as employer, and that their disease was due to overwork and to the unwholesome state of the buildings in which their duties were carried on. They furthermore argued that the State in the capacity of an employer ought not to set so bad an example to private employers.

Presentation to Professor Hayem.

Many professors of the Faculty of Medicine, the director of the Assistance Publique, hospital physicians, and the majority of the pupils of the eminent clinical teacher, Professor Hayem, assembled on Nov. 19th at the Hôpital Saint Antoine for the purpose of presenting him with a medal struck on the occasion of his retirement from the position of professor and hospital physician. The medal is the work of the sculptor, Roger Bloche. On one side it represents a bust of the professor and on the other side it shows him lecturing in the amphitheatre with the most celebrated of his pupils in the background. Dr. Milard, who presided, gave an outline of Professor Hayem's distinguished scientific career, and in particular the discovery of the physiological serum which bears his name. Professor Landouzy recalled the fact that Professor Hayem's grandfather had been a celebrated physician. Other addresses were then delivered by M. Mesureur, M. Dastre, Professor Barrié, Professor Gilbert, and Dr. Letulle. Professor Hayem, speaking with much emotion, expressed his thanks to his friends, colleagues, and pupils, with special reference to the organisers of the presentation, Dr. Gaston Lion and Dr. Bensaude.

Disorderly Scenes at the Lectures of M. Nicolas.

The disturbances created by the medical students at the lectures of M. Nicolas have begun again worse than ever. The students say that their professor, although distinguished as an embryologist, is not an anatomist, and they find fault with the time-table arrangement of the classes. For instance, instruction in osteology, which was carried on for two months at the amphitheatre of Clamant, now lasts only 16 days since the introduction of the system followed by M. Nicolas. They also complain that the dissecting-room subjects are so imperfectly injected as to be in a sorry condition when brought out. As the disturbances were becoming worse, the lectures of M. Nicolas have been provisionally suspended until Dec. 8th.

Dec. 4th.

BERLIN.

(FROM OUR OWN CORRESPONDENT.)

Physiological Effects of Balloon Ascents.

Dr. Flemming, of the Emperor William Academy in Berlin, has published an account of physiological and pathological observations made by him during balloon excursions, the ascents having been undertaken for the purpose of ascertaining the influence of high altitudes on the human body. He said that although balloon ascents are of frequent occurrence, experiments of this particular kind have nevertheless been rather uncommon in consequence of the fact that at great elevations some of the psychical faculties are weakened and the bodily energy becomes paralysed. No actual pain is felt, but the result is a state of apathy which renders the occupants of the car unfit for scientific work. Inhalation of oxygen, however, restores the normal psychical state The symptoms are, in fact, very like those observed in anæmic persons and are produced by a deficient supply of oxygen to the cerebral cortex. In anæmia the carriers of the oxygen—namely, the red corpuscles of the blood—are insufficient to convey the necessary amount of oxygen to the cortex, whilst at high altitudes a similar effect is produced by the diminished supply of oxygen in consequence of the rarefaction of the air. In Dr. Flemming's experience one of the symptoms observed at a great elevation was well-marked cyanosis of the skin, the mucous membranes, and the hands, which began to appear at a height between 4000 and 5000 metres. The pulse became very frequent, but inhalation of oxygen from a supply carried in a gas bottle brought its rate down to that which is usual on awaking after a quiet rest in bed. When the administration of oxygen was irregular or was commenced too late, then the frequency of the pulse became diminished, but not to the low rate of 68 beats per minute, as was the case when the supply of oxygen had been regular from the beginning. The respiration became more frequent with the increasing rarefaction of the air and also more superficial and irregular. This was partly caused by the deficiency of oxygen, which made the muscles less active; the insufficient oxidation of the tissues also led to the formation of certain products which had an irritant effect on the motor centres of the spinal cord. The respiration was also embarrassed by the expansion of the intestinal gases, as was shown by measuring the circumference of the abdomen. Dr. Flemming remarked that the red corpuscles of the blood were generally supposed to increase in number during residence in mountain resorts, but in the course of his balloon ascents he found that they decreased from 5,800,000 per cubic millimetre on the low ground, to 3,388,000 at an altitude of 8910 metres. This was, in his opinion, due to the fact that the low temperature of $-40°$ C. at that altitude produced a contraction of the capillary vessels of the skin, so that they became pervious only for the plasma of the blood but not for the corpuscular elements, the temperature and not the altitude being thus the decisive factor. It was remarkable that this low temperature was supported without much difficulty and without a feeling of intense cold, the cause being the dryness of the air and the intensity of the sun's rays, especially of the calorific ultra-red rays. The ultra-violet rays sometimes produced severe dermatitis; some of the balloonists suffered from conjunctivitis, but Dr. Flemming, who had protected his eyes by green-yellow glasses, fortunately escaped it. In conclusion, he described some interesting bacteriological experiments on the influence of the sunbeams on certain pathogenic micro-organisms, especially on pure cultures of the bacilli of enteric fever and cholera, bacillus pyocyaneus, bacillus prodigiosus, and the tubercle bacillus. In the result it was found that by exposure to the sun's rays the bacillus prodigiosus was destroyed after one hour and a quarter on the low ground and after only 20 minutes at an altitude of 5000 metres; for the bacillus of cholera the corresponding periods were one hour and a half on the low ground and one hour at the high altitude; while for the bacillus of enteric fever the periods were an hour and a half on the low ground and 20 minutes at the high altitude. Dr. Flemming then made an experiment on the influence of sunbeams on the development of tuberculosis. He found that the incubation period of tuberculosis was lengthened

by three and a half weeks when an emulsion of tubercle bacilli was exposed on the low ground for 15 minutes, and that tuberculosis did not develop at all after an exposure of the emulsion for 60 minutes. In contrast with this he found that an exposure for five minutes at an altitude of 5000 metres was sufficient to prevent the development of tuberculosis altogether. The bactericidal action of the sun's rays at the high altitude was therefore far greater than on the low ground. Dr. Flemming moreover remarked that at high altitudes wounds usually healed rapidly; furuncles and the pustules of acne also disappeared owing to the destruction of pathogenic germs.

Death of Professor Fraenkel.

Dr. Bernhard Fraenkel, formerly professor of laryngology and director of the laryngological clinic of the University of Berlin, died in that city on Nov. 11th, as mentioned in the last issue of THE LANCET. Professor Fraenkel was the son of a medical practitioner and was born in 1841 at Elberfeld in Rhenish Prussia. He obtained his professional qualifications in Berlin and settled there, first as a general practitioner, in which capacity he soon rose to a prominent position, but eventually specialised in laryngology. He served in the wars of 1864, 1866, and 1870–71, after the last of which he was appointed a *privat-docent* and became physician to the Augusta Hospital. In 1884 he was promoted to be professor; in 1887 he became director of the policlinic, and in 1893 director of the clinic for laryngology, then newly instituted in connexion with the University. For reasons of age and of health he resigned his appointment some six months ago. Among the various subjects to which Professor Fraenkel gave his attention mention may be made of his work on the anatomy of the nose, on the connexion between asthma and diseases of the nose, on cancer of the larynx, on the histology of the vocal cords, and on tuberculosis of the pharynx. In 1894 he founded the *Archiv für Laryngologie* and the Berlin Laryngological Society, of which he was the president until his death. He, moreover, did valuable work in connexion with tuberculosis, especially by advocating sanatorium treatment. He was the founder of the Berlin Sanatoriums Society, a member of the International Association for the Prevention of Tuberculosis, and co-editor of the two journals *Tuberculosis* and *Zeitschrift für Tuberculose*. Formerly he took an active part in movements for improving the position of the medical profession, being one of the founders and a member of the committee of the Deutscher Aertzevereinsbund. For 25 years he was the first secretary of the Berlin Medical Society. His death is generally regretted.

Attempted Murder of a Medical Man.

That club practice in Germany is far from being remunerative is generally admitted, and a recent incident has shown that the holder of such a position may even go in peril of his life. The event in question occurred at Essen, in Rhenish Prussia. A medical man on going home from the railway station was followed by a man unknown to him, and at the door of his house a shot was fired at him, the bullet lodging in his chest. His assailant then took to flight, but was arrested, and found to be a member of a sick club. The victim of this outrage is a medical officer of this club and had incurred the resentment of the club member by declining to certify him as being ill, with the result that the club refused to make him an allowance of sick pay.

Dec. 4th.

SWITZERLAND.

(FROM OUR OWN CORRESPONDENT.)

Clinical Teaching in Neurology.

THE Swiss Federal (State) examinations for the licence to practise medicine in Switzerland ("praktischer Arzt") are at present under revision, and Swiss neurologists are making efforts to secure a proper representation of the specialty of neurology. Dr. Veraguth, lecturer on neurology (*privat-docent*) at the University of Zürich, has worked out propositions which, having been accepted by the Swiss Neurological Society, have been laid before the Society of Swiss Medical Men. He pleads for a better education of the medical student in neurology, including obligatory attendance at a neurological clinique—still a desideratum,—a half-year course at a neurological out-patient department, and lectures on neurology and medical psychology. These propositions have not been accepted by the Federal Examination Commission, which considers the medical student already overburdened with a series of new subjects, such as dermatology and legal medicine, and they have also encountered sharp opposition both on the part of clinical teachers as well as from the professors of mental medicine. The former, with Professor Sahli as representative, hold that neurology should continue to be taught by the professor of clinical medicine, with the assistance of an experienced neurologist. Professor Sahli, at the annual meeting of the Neurological Society held at Bern on Nov. 11th and 12th, emphasised the detriment caused by further specialisation, calling Dr. Veraguth's proposition an attack on the teachers of clinical medicine. The latter, with Professor Forel as spokesman, at a meeting of the Swiss Psychiatric Society held at Zürich on Nov. 25th and 26th, declared that neurology should remain dependent on the professorship of mental medicine, but should be duly enlarged in scope by the establishment of neurological clinics and policlinics under capable sub-professors and medical assistants. Professor Forel objected to having the subject of nervous diseases further split up, lest one morbid condition—for example, hysteria—should be demonstrated to the student at three clinics from three different points of view both as regards definition and treatment. It is probable that several years will still elapse before the conflicting views on this important subject can be harmonised.

Dec. 4th.

UNITED STATES OF AMERICA.

(FROM OUR OWN CORRESPONDENTS.)

A Strike of Scavengers.

THE work of the familiar "White Wings," so named from their white drill uniform, who do the street cleaning of the city of New York, having caused great annoyance to pedestrians and others from the flying dust, the hours of the brigade were changed to eight hours between sunset and sunrise. Although these men are extremely well paid for unskilled work—viz., $18, or £3 12*s.*, a week—the change in their hours moved them to strike. In less than 48 hours the accumulation of filth, especially in the east side of the city, was appalling, and the people were threatened with all the troubles of filth-borne diseases. To the surprise of the strikers, it was pointed out to them that they were civil service employees and were consequently somewhat in the position of soldiers or sailors, a strike among whom means mutiny. "Strike breakers" were promptly imported by the thousand, under whose efforts, extending over a week, the piles of garbage were removed. The misled strikers now find themselves forced out of good employment by the automatic succession of the men following them upon the civil service list. It is likely that New York will be spared a similarly dangerous strike for many years to come.

Transplantation of a Human Kidney.

Although Dr. L. J. Hammond, of the Methodist Episcopal Hospital of Philadelphia, has not yet given an official account of his work, it is well known that on Nov. 13th he transplanted a kidney from the body of a man recently killed in an automobile accident to that of a patient afflicted with renal tuberculosis, with the immediate result of anastomosis of vessels and other satisfactory consequences. Dr. Hammond had a large audience of American and Canadian surgeons who were attending the Clinical Congress at Philadelphia, during which an immense number of major operations were performed.

A Christian Science Home.

A statement made in a former of these letters to the effect that a home for Christian Scientists had been founded in the State of New York has elicited expressions of doubt. The New York evening papers of Oct. 6th published as news a paragraph, of which the following are extracts: "In Special Term of the Supreme Court, Justice Pendleton to-day signed an order approving the certificate of incorporation of the First Christian Science Home Association of the State of New York. The avowed purpose of the association, which is said to be the first of its kind in this State,

is to establish and provide suitable and homelike accommodations for men and women desirous of receiving the benefits and precepts of the late Mrs. Mary Baker Eddy. The home will exclude no one on the ground of poverty, birth, or prejudice, ... and will give shelter, food, clean and quiet surroundings to those who seek its benefits. The incorporators and directors for the first year are Lysbeth L. Campbell, of 150, West 94th-street; Regina F. Rothschild, 365, West 118th-street; Emerson P. Jennings and Susan E. Jennings, 1738, 79th-street, Bath Beach; Philip P. Major, 75, West 92nd-street; and Marguerita Markle, 152, West 98th-street."

The Crocker Bequest.

A California millionaire, who died from the effects of a malignant growth, left £200,000 to Columbia University for the establishment of a fund connected with his name and having for its object the investigation of cancer. After prolonged litigation this legacy has been confirmed, and the Faculty of Medicine, still popularly known as the College of Physicians and Surgeons, is already planning a vigorous programme.

A Seizure of Glass Eyes.

American-made glass eyes are not equal to the German article, and the trade is forced to pay a customs duty of 60 per cent. *ad valorem* on the German eyes as "decorated glass." A so-called German baron has been under suspicion for some time as a smuggler of the articles, and recently the Federal agents found a *cache* in Hoboken, New Jersey, where many of the big liners dock, of 14,000 glass eyes. The baron and a supposed accomplice were arrested and held in £1000 bail each. These imported eyes are sold wholesale at about 4*s.* each, but retail at about 1 guinea, including the fitting and careful matching in colour. Several employees of the steamship lines will probably be arraigned along with the foreign nobleman.

Another Opium Raid.

A raid was made in the Harlem district of New York on Nov. 4th on a Chinese laundry, where the usual supply of opium extract in various forms was unearthed to the tune of several hundred dollars, much of it in the familiar lychee nuts, the kernel of which is replaced with smoking opium and retails at about a shilling. The "joint" (opium den) was considered to be a particularly villainous one in furnishing an exclusive *clientèle* of negroes, who seem to be singularly susceptible to the influence of narcotics and become dangerous criminals under their use.

The Death-rate of New York.

This continues to drop, and for the week ending Oct. 31st was the lowest on record—viz., 12·12 per mille.

Personal.

Dr. David D. Scannell has resigned the assistant professorship of surgery at Tufts College, Boston, and with him the entire surgical faculty, the reason assigned being that he was not considered in the appointments made at Grace Hospital, Boston.—Dr. Simon Flexner, of the Rockefeller Institute for Medical Research, has been appointed by the German Emperor an honorary member of the Royal Institute for Experimental Therapeutics of Frankfort-on-the-Main.—Dr. William James Henry Bellamy, a popular and well-known practitioner among the fashionable winter colony of the South, died at Wilmington, N.C., on Nov. 17th.—Dr. Walter Wyman, the distinguished surgeon-general of the Public Health and Marine Hospital Service, died at Washington on Nov. 20th. He accomplished much for the sailors of the Atlantic and on the western rivers, and established the first Federal Government Sanatorium for Consumptives in New Mexico. He was a power for the general betterment of the nation's health as far as his influence was not circumscribed by his official position, and he is greatly regretted.

Nov. 22nd.

ROYAL INSTITUTION.—Dr. W. Bateson, F.R.S., has been appointed Fullerian Professor of Physiology at the Royal Institution for a period of three years. During the present winter Professor Bateson will deliver a course of six lectures before the institution on the Study of Genetics.

NOTES FROM INDIA.

(FROM OUR OWN CORRESPONDENTS.)

The Prevention of Malaria.

THOSE who have followed the development of our knowledge regarding malaria know that there are at present in Europe two parties of propagandists with reference to the prevention of malaria. One party advocates anti-mosquito measures large and small, and the other pins its faith to the widespread use of quinine as the correct method of extirpating malaria. For some time there was a danger that, until the difference of opinion between these two parties should be settled, no very active measures against the disease would be taken by administrations. It is greatly to the credit of scientific workers in India that at this point, instead of continuing a controversy from which no useful result was likely to accrue, they dissociated themselves from both parties, and proposed the new line of action which had its beginning at the Imperial Malarial Conference held at Simla in 1909. The outstanding and highly important feature of this conference was not the list of recommendations regarding the particular measures which should, or should not, be adopted, but the founding of a permanent organisation for dealing with the disease in every chief area of the country. The organisation proposed was: (1) a central scientific committee; (2) a committee in each province; and (3) a general committee consisting of the members of the central committee and delegates from the provincial committees. The deliberations of the conference showed that the first essential in the attack against malaria in India is not the immediate initiation here, there, and everywhere of expensive anti-mosquito campaigns on the lines of those reported to have been successful in a few countries under conditions very different from those prevailing in India, but the obtaining of accurate and complete knowledge of all the circumstances connected with the disease in different areas. The central scientific committee was, therefore, appointed to direct and coördinate investigations to this end, and in the first place they made arrangements by which each province should be able to train a number of officers and subordinates in modern methods of malarial research. With this object there was established a Central Malarial Bureau, containing a museum, laboratory, and reference library, and at Amritsar a house was secured which serves as a permanent laboratory for malarial investigations and teaching. The next step was the appointment in the several provinces of some specially trained officers who would devote their whole time to the study of malaria. They have been provided with adequate working staffs, and tour from place to place investigating the disease and assisting in its prevention. In addition, specially qualified officers work directly under the auspices of the central committees. It is the duty of the former workers to ascertain exactly the malarial circumstances of different areas and state the remedies which should be applied. Two noteworthy examples of the results of such work are the reports by Major S. R. Christophers, I.M.S., on the causes of malaria in the Punjab, and by Dr. C. A. Bentley on the causes of malaria in Bombay city, and the measures necessary for its control. These have both been referred to on several occasions in THE LANCET. The more we know of malaria and the more it is studied, the more obvious becomes the conclusions that detailed investigations are essential before large sums of money are spent on schemes designed to improve malarial conditions. When, however, such investigations have been conducted and definite conclusions have been arrived at, it is the function of the provincial and general committees to ensure that satisfactory and complete action is taken upon them. The members of these committees are necessary and complementary to the scientific workers; it is their duty to spread the conclusions, to teach, to persuade, and there can be no doubt that if they do so with energy the result will not be long delayed. There is evidence that in some provinces the malarial committees have already realised their responsibilities in this respect, and one sign of this is found in the fact that the consumption of quinine in this country has increased greatly during the last two years. The most recent move is the initiation of a scheme for an Indian Research Fund, to be devoted exclusively to

researches in connexion with sanitary problems, the primary object being to assist the policy of making a direct attack upon malaria and certain other of the more important epidemic diseases. It is stated that the Government of India has made a grant of five lakhs of rupees to this fund, and that one of the proposed items of expenditure will be the investigation and carrying out of various educational methods by which the people of India may be brought to realise how to protect themselves from malaria and other epidemic diseases.

Smoking in the Army.

The use of tobacco in the army is the subject of an article by Lieutenant-Colonel P. Hehir, I.M.S., in the *Journal of the United Services Institution of India*. He alleges that the imported cigarettes used by troops in this country are made from the refuse of the tobacco market. Last year, he says, one brand was sold for 20 for ½*d.*, the tobacco in them being uncured and half-rotten. There have been issued various orders by commanding officers and general officers, and in some cases the smoking of cigarettes has been prohibited at times when no restriction is made on pipe-smoking. But if it is true that cigarette-smoking is on the increase in the British and in the Indian army, some more concerted action than these spasmodic efforts is desirable. Colonel Hehir suggests that the tobacco sold in canteens, coffee-shops, regimental bazaars, and in cantonments generally, should be closely watched and controlled.

Nov. 15th.

AUSTRALIA.

(FROM OUR OWN CORRESPONDENT.)

Charge Against a Medical Man.

THE trial of Dr. Samuel Peacock on a charge of murder was concluded at Melbourne before the Chief Justice and a jury after a prolonged hearing. The charge was concerned with the disappearance of a young woman who had admittedly been an inmate of a private hospital owned by the accused. The case for the Crown was that the young woman had died after an illegal operation and that the accused had secretly disposed of the body. The accused read a lengthy statement in which it was alleged that the young woman had left the hospital, and some articles of jewellery found in the accused's possession were said to have been voluntarily left behind. No trace of the body was discovered, and the evidence was almost entirely presumptive, except for certain statements made by the principal witness for the Crown who had had certain relations with the missing woman. The jury after three hours' retirement returned a unanimous verdict of "Guilty," and the accused was formally sentenced to death, although some law points are reserved for future argument. Dr. Peacock is 72 years of age.

Tenth Australasian Congress.

Dr. Arthur C. Purchas, the President-elect of the next session of Congress to be held in Auckland, New Zealand, in 1914, is a graduate of the University of Edinburgh. He was born in New Zealand, and is a son of the Rev. Arthur Purchas.

Charities Bill.

The Charity Bill introduced into the Victorian State Parliament by the Government, in which it is proposed to vest the control of finance in all charities subsidised by the Government in a board of three commissioners, passed the second reading in the Assembly, but its further progress was stopped by the dissolution of Parliament, and it must now go over until the new House meets. On the whole it has been sympathetically received, but its serious discussion was not entered upon, as it was recognised that there was no prospect of its being placed on the statute book by the present Government before the General Election.

Pure Milk.

The Victorian Minister of Health recently called a conference of municipal and other bodies to consider the question of a pure milk-supply and the establishment of municipal milk depôts for infants. Some preliminary points were discussed, and the conference adjourned for the appointment of representatives from the Victorian Branch of the British Medical Association and other public bodies, including the Australian Natives Association, a powerful friendly society in Victoria. The Lady Talbot Milk Institute, which was the pioneer movement in this line, has been proved to offer financial difficulty, and it is considered that the municipal councils could better undertake the same work. The attitude of the medical profession towards the new development has not yet been defined.

Melbourne Hospital.

The new buildings of the Melbourne Hospital are now well advanced in certain directions, and three blocks are almost complete as regards the actual construction. They consist of an administrative section and two ward-blocks, each of which is six storeys in height, constructed in brickwork. Although space has been gained by going up into the air, it is evident that the contention of those who considered the ground area too small for a large hospital is being confirmed.

Lunacy in Victoria.

The annual report of the Inspector-General for Insane in Victoria states that there has been a material increase in admissions during 1910, and that whereas 5200 registered patients were under supervision at the beginning of the year, the number at the close was 5349. The receiving house totals were 41 and 47. At the end of 1909 the ratio was 1 insane person to 250 of population, and at the end of 1910 1 to 246. The deaths numbered 368, as against 371 in the previous year. The report discusses the reasons for the high proportion of insane in Victoria. Some points set forth are the high proportion of old people in the population, the low masculinity rate, low birth-rate, and so on, but no positive conclusion is drawn. The expenditure in maintenance was £169,174, an increase of £6057 on the previous year. The Inspector-General has written to the *Australian Medical Journal*, drawing the attention of medical men to the fact that the efficiency of the receiving house is being impaired by the sending of patients who might at once be certified for admission to an asylum, and suggests that this is probably due to a wish to spare the feelings of relatives, but results in blocking the reception of cases for whom something might be effected in the way of improvement or cure.

Nov. 4th.

Obituary.

FRANCIS THOMAS BOND, M.D. LOND., M.R.C.S. ENG., F.R.S. EDIN.,

MEDICAL OFFICER OF HEALTH, GLOUCESTERSHIRE COMBINED DISTRICT, ETC.

Dr. Francis Thomas Bond died at his residence, 3, Beaufort Buildings, The Spa, Gloucester, on Tuesday afternoon last. The deceased was taken suddenly ill on the morning of Thursday, Nov. 30th, whilst waiting at the Great Western Railway Station at Gloucester for a train to Cirencester, where he was to have attended a meeting of the urban district council in his capacity as medical officer of health to the Gloucestershire Combined Sanitary District. He was sitting near the fire in one of the waiting-rooms at the time when he suddenly collapsed, and medical aid having been summoned he was conveyed to his residence. It was found that he had had a slight paralytic stroke, and although his condition improved somewhat he afterwards became worse, passing peacefully away, as stated, on Tuesday afternoon.

The late Dr. Bond was in his seventy-eighth year. He took his Bachelor of Arts degree in 1853, and became a Member of the Royal College of Surgeons of England in 1856, his education and training having been obtained at Queen's College, Birmingham; St. Mary's Hospital, London; as well as in Paris and Edinburgh. He took his M.B. degree (being awarded the medal in physiology) in 1857 at the University of London, where he became M.D. in 1860. Subsequently he became a Fellow of the Royal Society of Edinburgh, and a Fellow of the Chemical Society. For a time he was physician and professor of clinical medicine at Queen's Hospital, Birmingham, and was also professor of chemistry and Dean of Faculty at Queen's College. Later Dr. Bond held an important educational appointment in the south of England, being for some time Principal of the Hartley Institute, Southampton, and this he gave up with a view of devoting himself to sanitary work, which he entered on in 1873, when, upon the formation by

the Local Government Board of the Gloucestershire Combined Sanitary District (which then consisted of 13 local sanitary authorities), he was, out of a large number of candidates, appointed its first medical officer of health, which responsible position he retained to the time of his death. During the period of close upon forty years in which Dr. Bond acted in this capacity he gained an experience of sanitary matters connected with Gloucestershire which is surely unrivalled, and as an expert upon public health questions generally he was properly held in very high esteem. He devoted himself whole-heartedly to the work, and his death comes as a great loss to the various local authorities who had for so long a period had the advantage of his valuable store of knowledge.

Amongst other positions which he had held in the course of a long and busy professional career were those of president of the West of England and South Wales Branch of the Society of Medical Officers of Health, of the Midland Association of Medical Officers of Health, and of the Gloucester Branch of the British Medical Association. Dr. Bond took an especial interest in the question of vaccination, the cause of which he was ready at all times and upon all occasions to champion, and he was prominently associated with the formation of the Jenner Society, of which he was the honorary secretary. He was a prolific writer upon scientific and other questions. Among his many publications may be mentioned contributions on the "Pathology of Rheumatism" in 1858 and the "Pathology of Chorea" in 1860; a translation of "Radicke on Medical Statistics"; "Notes on Water Filtration" in 1875; "A Plea for the More General Practice of Skipping as an Unsurpassed Form of Home Gymnastics" in 1906; and "Gloucester Mineral Spa: its History and Capabilities," issued for private perusal about the year 1906.

Dr. Bond did a good deal in the direction of bacteriological research and experimental work, and was of an inventive turn of mind. Among other things he patented a filter, and a hygienic quilt. He also identified himself with scientific agriculture, and more especially the dairy industry; and he evolved a method of cheese manufacture with which he was associated for a number of years. He leaves a widow, one son, and a daughter.

DEATHS OF EMINENT FOREIGN MEDICAL MEN.—The deaths of the following eminent foreign medical men are announced:—Dr. Adam Szulislawski, extraordinary professor of ophthalmology in the University of Lemberg.—Dr. Charles Throw, adjunct professor of ophthalmology and otology in the University of Toronto.—Dr. A. F. Legendre, of the French Colonial Medical Service, who was sent by the Government on a scientific mission to China, massacred by the Lolos in Hong Chouei Tong.—Dr. Néjolov, professor of midwifery and gynæcology in the University of Warsaw.—Dr. Hans Hammerstein, formerly assistant to Dr. Nagel, professor of gynæcology, of diphtheria contracted from a patient. In spite of the most skilful treatment death occurred in two days.—Dr. Hennigsen, of Gehren, president of the Thüringen Medical Association.

Medical News.

UNIVERSITY OF LONDON.—At the M.D. examination for internal and external students the following candidates were successful:—

Branch I., Medicine.—Phirozshaw Cooverji Bharucha, B.S., University College Hospital; John Webster Bride, B.S., Victoria University of Manchester; Manchersha Dhanjibhai Dorabji Gilder, B.S., University College Hospital; Alexander Edward Gow, B.S., St. Bartholomew's Hospital; Frederick William Higgs, B.S., St. George's Hospital; Ernest Williams Jones, University of Birmingham; David Judah, B.S., and Clement Lovell, B.S., University College Hospital; and Geoffrey Viner, B.S., and Arthur Lowndes Yates, B.S., St. Bartholomew's Hospital.

Branch IV., Midwifery and Diseases of Women.—Elsie Mary Chubb, B.S., London (Royal Free Hospital) School of Medicine for Women; Joseph Bernard Dawson, B.S., University of Birmingham and St. Bartholomew's Hospital; William Poole Henley Munden, B.S., Guy's Hospital; John Hobart Nixon, B.S., St. Mary's Hospital; Alfred Howard Parkinson, B.S., B.Sc., University of Leeds; and Robert Evans Thomas, B.S., University of Bristol.

Branch V., State Medicine.—Alfred Ball, B.S., and Walter Francis Corfield, B.S., University College Hospital; Matilda Hunt, B.S., London (Royal Free Hospital) School of Medicine for Women and Royal Institute of Public Health; James Jenkins Paterson, B.S., B.Sc., University of Liverpool; Alfred Charles Foster Turner, B.S., St. Thomas's Hospital; Wentworth Francis Tyndale, St. George's Hospital; Thomas Williams Wade, B.S., University College, Cardiff, and Charing Cross Hospital; and Cuthbert Ferguson Walker, B.S., St. Mary's Hospital and Victoria University of Manchester.

Branch VI., Tropical Medicine.—Daniel Elie Anderson, B.A., B.Sc., London School of Tropical Medicine; Francis Victor Owen Beit, St. Bartholomew's Hospital and London School of Tropical Medicine; Friedrich Grône, St. Bartholomew's Hospital; John Hanna Murray, University College Hospital and London School of Tropical Medicine; and Charles Cecil Connock Shaw, B.S., St. Mary's Hospital, London School of Tropical Medicine, and Post Graduate College, West London Hospital.

N.B.—This list, published for the convenience of candidates, is issued subject to its approval by the Senate.

UNIVERSITY OF BRISTOL.—At the Autumn Congregation the following medical degrees were conferred. The candidates were presented by the Dean of the Medical Faculty, Professor Edward Fawcett.

M.D.—J. F. Blackett and Latimer J. Short.
M.S.—C. A. Joll.
M.B., Ch.B.—R. C. Clarke, E. E. Davies, C. A. H. Gee, S. H. Kingston, W. A. Reynolds, R. S. Statham, E. F. Thomas, J. W. J. Wilcox, and F. P. Mackie.
B.D.S.—C. J. Kelsey and W. J. Lennox.

FOREIGN UNIVERSITY INTELLIGENCE.—*Berlin:* Dr. Umber has been appointed Director of the Medical Department of the West-end Hospital, Charlottenburg, in succession to the late Dr. Grawitz.—*Bonn:* Dr. A. Machol has been appointed Oberarzt of the University Surgical Clinic, in succession to Dr. Stich, who is going to Göttingen; and Dr. Rudolf Finkelnburg has been appointed Director of the Hydrotherapeutic Institute in connexion with the University Medical Clinic, in succession to Dr. Julius Strasburger, who is migrating to Breslau.—*Clausenburg:* Dr. Elemer Veress has been appointed Extraordinary Professor of Biology; and Dr. Genersich and Dr. Reinbold have been granted the title of Extraordinary Professor.—*Göttingen:* Dr. Wilhelm Tintemann has been appointed Oberarzt of the Provincial Asylum, where instruction is given to the University students in Mental Diseases.—*Königsberg:* Dr. R. Haecker has been recognised as *privat-docent* of Surgery.—*Leipsio:* Dr. Läwen has been appointed Director of the Surgical Department of the new St. George's Hospital.—*Marburg:* Dr. F. A. König, of Greifswald, has been appointed to the chair of Surgery, in succession to Dr. Friedrich.—*Moscow:* Dr. A. W. Grigorieff, of Warsaw, has been appointed to the chair of Forensic Medicine.—*Pisa:* Dr. F. Cavazzi has been recognised as *privat-docent* of External Pathology.—*Philadelphia (University of Pennsylvania):* Dr. T. T. Thomas has been appointed Adjunct Professor of Anatomy, in succession to Dr. Davis.—*Prague (German University):* Dr. Karl Zörkendörfer, of Marienbad, has been recognised as *privat-docent* of Balneology and Hygiene.—*Sienna:* Dr. F. Melocchi has been recognised as *privat-docent* of Internal Pathology.—*Vienna:* Dr. O. Porges has been recognised as *privat-docent* of Medicine.

LANGHO REFORMATORY.—At the annual meeting of the Lancashire Inebriates Acts Board held recently at Preston, the chairman stated that after seven and a half years' practical experience at Langho of the working of the present Act they were in a position to judge of its merits and its defects. The number of the inmates had increased. It contained fundamental defects and omissions which practically rendered it valueless, a view that had been endorsed by more than one Parliamentary committee. The Home Secretary had expressed the hope that he might be able to press forward legislation on the subject next session. Many of the failures were due to the women being sent to the reformatory late in life, and also to their not being looked after when they came out. Many of the women inmates were irreformable, and present-day legislation could not effectively deal with them.

REUBEN HARVEY MEMORIAL PRIZE.—The tenth award of this triennial prize will be made on July 1st, 1912. The competition for the prize is open to all students of the various schools of medicine in Dublin which are recognised by the medical licensing bodies in Ireland, and also to graduates or licentiates of these bodies of not more than three years' standing at the time of the award. The prize, value £25, will be awarded to the writer of the best essay, on a subject to be selected by the candidate, evidencing original research in animal physiology or pathology; the

essay to be illustrated by drawings or preparations. The essays, bearing fictitious signatures, are to be lodged with the Registrar of the Royal College of Physicians of Ireland, Dr. T. Percy C. Kirkpatrick, Kildare-street, Dublin, on or before June 1st, 1912.

THE death occurred with painful suddenness at Billingshurst, Sussex, on Nov. 22nd, of Mr. William Henry Hubert, M.R.C.S.Eng. He was a very keen hockey player, and while taking part in a game he suddenly fell backwards and expired immediately. Mr. Hubert was most highly respected. For very many years he had practised in the above district and he held a number of local appointments. After studying at St. George's Hospital Mr. Hubert qualified in 1868.

THE EMPRESS MARIE FÉODOROVNA FUND.—This fund was founded during the Seventh International Red Cross Conference, held at St. Petersburg in 1902, by Her Imperial Majesty the Empress Marie Féodorovna, the August Protectress of the Russian Red Cross Society, for the purpose of awarding prizes to the authors of the best inventions having for their object the diminution of the sufferings of the sick and wounded in time of war. The next competition will be held in connexion with the Ninth International Red Cross Conference to be held at Washington, D.C., from May 7th to 17th, 1912, where the inventions of competitors will be displayed. There are three prizes of approximately £600, £300, and £100. Full particulars of the subjects for competition can be obtained from the secretary, 9, Victoria-street, London, S.W.

Parliamentary Intelligence.

NOTES ON CURRENT TOPICS.

The National Insurance Bill.

UNDER the closure resolution of the House of Commons the guillotine fell upon the report stage of Part I. of the National Insurance Bill on the evening of Thursday, Nov. 30th. This part covers the whole field of National Health Insurance, and in the closure resolution it was included with the proposed new clauses in the first compartment of time devoted to the Bill. However, the full time—two and a half days—was, in fact, given to the new clauses, and not a single line of Part I., as it emerged from committee, was discussed before the guillotine fell. The Chancellor of the Exchequer had about 470 amendments standing on the notice paper in his name. These were put from the chair one by one, and declared to be carried. The Opposition, refraining from the task of forcing divisions, retired from the House after a protest. The numerous changes thus made in the Bill introduce further complexity into it, and their cumulative effect could not be estimated until the measure as amended had been printed.

The Administration of Medical Benefit.

Clause 16 deals with the administration of medical benefit. As amended by the introduction of the changes proposed by the Chancellor of the Exchequer it reads as follows:—

"1. Every Local Health Committee shall for the purpose of administering medical benefit make arrangements with duly qualified medical practitioners in accordance with regulations made by the Insurance Commissioners.

"2. The regulations made by the Insurance Commissioners shall provide for the arrangements made being subject to the approval of the Insurance Commissioners and being such as to secure that insured persons shall, save as hereinafter provided, receive adequate medical attendance and treatment from the medical practitioners with whom arrangements are so made and shall require the adoption by every Local Health Committee of such system as will secure:—(*a*) the preparation and publication of lists of medical practitioners who have agreed to attend and treat insured persons whose medical benefit is administered by the committee; (*b*) a right on the part of any duly qualified medical practitioner who is desirous of being included in any such list as aforesaid of being so included, but where the Insurance Commissioners, after such inquiry as may be prescribed, are satisfied that his continuance in the list would be prejudicial to the efficiency of the medical service of the insured, they may remove his name from the list; (*c*) a right on the part of any insured person of selecting, at such periods as may be prescribed, from the appropriate list the practitioner by whom he wishes to be attended and treated, and, subject to the consent of the practitioner so selected, of being attended and treated by him; (*d*) the distribution amongst and, so far as practicable, under arrangements made by the several practitioners whose names are on the lists of the insured persons who after due notice have failed to make any selection, or who have been refused by the practitioner whom they have selected; (*e*) the provision of medical attendance and treatment, on the same terms as those arranged with respect to insured persons, to members of any friendly society which becomes an approved society who were such members at the date of the passing of this Act and who are not entitled to medical benefit under this part of this Act by reason either that they are of the age of 65 or upwards at the date of the commencement of this Act, or that being subject to permanent disablement at that date they are not qualified to become insured persons.

"Provided that if the Insurance Commissioners are satisfied after inquiry that the practitioners included in any list are not such as to secure an adequate medical service in any area, they may dispense with the necessity of the adoption of such system as aforesaid as respects that area, and authorise the committee to make such other arrangements as the Commissioners may approve; or the Commissioners may themselves make such arrangements as they think fit, or may suspend the right to medical benefit in respect of any insured persons in the area for such period as they think fit, and pay to each such person a sum equal to the estimated cost of his medical benefit during that period, and where the Commissioners take any such action themselves they shall retain and apply for the purpose such part of the sums payable to the Local Health Committee in respect of medical benefit as may be required.

"3. The regulations made by the Insurance Commissioners shall authorise the Local Health Committee by which medical benefit is administered to require any persons whose income exceeds a limit to be fixed by the committee, and to allow any other persons, in lieu of receiving medical benefit under such arrangements as aforesaid, to make their own arrangements for receiving medical attendance and treatment (including medicines and appliances), and in such case the committee shall, subject to the regulations, contribute from the funds out of which medical benefit is payable towards the cost of medical attendance and treatment (including medicines and appliances) for such persons sums not exceeding in the aggregate the amounts which the committee would otherwise have expended in providing medical benefit for them.

"4. The regulations shall provide that, in the case of persons who are entitled to receive medical attendance and treatment under any system or through any institution existing at the time of the passing of this Act, and approved by the Local Health Committee and the Insurance Commissioners, such medical attendance and treatment may be treated as, or as part of, their medical benefit under this part of this Act, and may provide for the committee contributing towards the expenses thereof the whole or any part of the sums which would be contributed in the case of persons who have made their own arrangements as aforesaid, so, however, that such regulations shall secure that no person be deprived of his right, if he so elects, of selecting the duly qualified medical practitioner by whom he wishes to be attended and treated, in accordance with the foregoing provisions of this section.

"5. Every such committee shall also make provision for the supply of proper and sufficient drugs and medicines and prescribed appliances to insured persons in accordance with regulations made by the Insurance Commissioners, which shall provide for the arrangements made being subject to the approval of the Insurance Commissioners, and being such as to enable insured persons to obtain from any persons, firms, and bodies corporate with whom arrangements have been made such drugs, medicines, and appliances if ordered by the medical practitioner by whom they are attended, and shall require the adoption by every Local Health Committee of such a system as will secure—(*a*) The preparation and publication of lists of persons, firms, and bodies corporate who have agreed to supply drugs, medicines, and appliances to insured persons whose medical benefit is administered by the committee, according to such scale of prices as may be fixed by the committee; (*b*) a right on the part of any person, firm, or body corporate desirous of being included in any such list as aforesaid, of being so included for the purpose of supplying such drugs, medicines, and appliances as such person, firm, or body corporate is entitled by law and authorised by the committee to supply except in cases where the Insurance Commissioners after inquiry are satisfied that the inclusion or continuance of the person, firm, or body corporate, in such list would be prejudicial to the efficiency of the service: Provided that—(i) If the Insurance Commissioners are satisfied that the scale of prices fixed by the Committee is reasonable, but that the persons, firms, or bodies corporate included in any list are not such as to secure an adequate and convenient supply of drugs, medicines, and appliances in any area, they may dispense with the necessity of the adoption of such system as aforesaid as respects that area, and authorise the committee to make such other arrangements as the Commissioners may approve. (ii) Except as may be provided by regulations made by the Insurance Commissioners, no arrangement shall be made by the Local Health Committee with a medical practitioner under which he is bound or agrees to supply drugs or medicine to any insured persons. (iii) Subject to the regulations made by the last foregoing proviso, the regulations shall prohibit arrangements for the dispensing of medicines being made with persons other than persons, firms, or bodies

corporate, entitled to carry on the business of a chemist and druggist under the provisions of the Pharmacy Act, 1868, as amended by the Poisons and Pharmacy Act, 1908, who undertake that all medicines supplied by them to insured persons shall be dispensed either by or under the direct supervision of a registered pharmacist or by a person who, for three years immediately prior to the passing of this Act, has acted as a dispenser to a duly qualified medical practitioner or a public institution. (iv) Nothing in this Act shall interfere with the rights and privileges conferred by the Apothecaries Act, 1815, upon any person qualified under that Act to act as an assistant to any apothecary in compounding and dispensing medicines.

"6. There shall in each year be paid to the Local Health Committee for each county or county borough out of moneys credited to a society which has members resident in the county or county borough such sum in respect of the medical benefit of such members and the cost of administration thereof as may be agreed between the society and the committee, or in default of agreement may be determined by the Insurance Commissioners.

"7. If in any year the amount payable to a Local Health Committee in respect of all persons for the administration of whose medical benefit it is responsible is insufficient to meet the estimated expenditure thereon the committee may, through the Insurance Commissioners, transmit to the Treasury and to the council of the county or county borough an account showing the amount so payable and the estimated expenditure, and the Treasury and the county council or the council of the county borough may, if they think fit and if satisfied that the amounts so payable and the proposed expenditure are reasonable and proper in the circumstances, sanction the expenditure.

"8. The Treasury and the council of the county or county borough sanctioning any such expenditure as aforesaid shall thereupon each be liable to make good, in the case of the Treasury out of moneys provided by Parliament, and in the case of the council of a county or county borough out of the county fund or borough fund or borough rate, as the case may be, one-half of any sums so sanctioned by them and expended by the Local Health Committee on medical benefit in the course of the year in excess of the amounts so payable to the Local Health Committee as aforesaid."

Medical Men and Health Committees.

Clause 55 deals with the Local Health Committees. After providing for the representation of insured persons, the clause as amended proceeds:—"(c) Two members shall be elected in manner provided by regulations made by the Insurance Commissioners, either by any association of duly qualified medical practitioners resident in the county or county borough which may have been formed for that purpose under such regulations, or, if no such association has been formed, by such practitioners; (d) one member or, if the total number of the committee is 60 or upwards, two members, or if the total number of the committee is 80, three members, shall be duly qualified practitioners appointed by council of the county or county borough."

The provision that of the members appointed by the Insurance Commissioners one at least shall be a medical man remains.

Medical Men as Commissioners.

By the amendments now inserted in the Bill, a medical man is to be appointed as an Insurance Commissioner in Scotland, Ireland, and Wales respectively.

The Insurance Commissioners.

The announcement that the Government had appointed Mr. J. SMITH WHITAKER to be the Deputy Chairman of the Insurance Commissioners and the Medical Commissioner was made in the House of Commons on Monday, Dec. 4th. He has become known to Members as the medical secretary of the British Medical Association during the protracted negotiations which that organisation has had with the Chancellor of the Exchequer. The chief interest in Westminster in Mr. SMITH WHITAKER'S appointment is the effect which it will have on the medical profession at large. Mr. LLOYD GEORGE is not yet in a position to give the names of the Irish, Scottish, and Welsh Commissioners.

Third Reading of National Insurance Bill.

The National Insurance Bill was read a third time in the House of Commons on Wednesday, Dec. 6th. The official Opposition brought forward a reasoned amendment to the motion for third reading. It was moved by Mr. H. W. FORSTER and was in the following terms:—"That, while approving the objects of national insurance, this House is of opinion that under Part I. of the Bill public funds and individual contributions will not be used to the best advantage of those most closely affected, and that, as the Bill has been neither adequately discussed in this House nor fully explained to the country, and would in its present form be unequal in its operation, steps should be taken to enable further consideration of Part I. to be resumed next session, and in the meanwhile to have the draft regulations published."

The debate ran largely on the question whether adequate time had been given for the thorough discussion of the measure. The Chancellor of the Exchequer maintained that all substantial points had been discussed at some stage of the proceedings on the Bill. He admitted, in a sentence, that he was not going to say that the Bill gave satisfaction to the medical profession. Ultimately the amendment was rejected by 320 votes to 223. The motion for the third reading was carried by 324 votes to 21.

The Health Visitors Bill.

The Health Visitors Bill has been withdrawn in the House of Commons without having reached a second reading.

HOUSE OF COMMONS.

WEDNESDAY, NOV. 29TH.

National Insurance in the Highlands.

Mr. MACPHERSON asked the Secretary to the Treasury whether, in view of the fact that in the Highlands and Islands of Scotland the population was so poor and scattered, he would take steps to provide for the necessity of giving a grant in aid to the Local Insurance Committee, to be used by them to secure effective enjoyment of all the benefits of the scheme for the insured persons and fair mileage fees for doctors.—Mr. MCKINNON WOOD replied: The difficulty pointed out by my honourable friend has been met to a certain extent by the insertion of Subsection (9) of the Scottish clause, and the new clause passed last night giving power to vary benefits in certain cases; and before arriving at any conclusion as to the desirability or otherwise of special grants it seems necessary to wait for the results of these provisions.

Hospital Inmates and National Insurance.

Mr. EVELYN CECIL asked the Chancellor of the Exchequer whether he was aware that at present if a man left his lodgings and went into a hospital he got his sick pay, which was sufficient to enable him to keep on his lodgings while he was in hospital and help him to a convalescent home afterwards, but that, under Clause 14 (b) of the National Insurance Bill, if he had no dependent, his sick benefit went to the Local Insurance Committee, so that he had none of this money with which to keep on his lodgings or get to a convalescent home; and whether he proposed to make any amendment to the Bill to meet such cases.—Mr. LLOYD GEORGE wrote, in reply: The principle of sickness benefit is that it should assist a man to maintain himself and his family while incapacitated by illness. If he is being maintained without expense to himself, and has no dependents, this principle does not apply. I may remind the honourable Member that the money thus saved to the committees will be used largely in contributions to hospitals and similar institutions.

MONDAY, DEC. 4TH.

Mr. J. Smith Whitaker appointed Medical Insurance Commissioner.

Mr. JOYNSON-HICKS asked the Chancellor of the Exchequer whether the report was correct that Mr. J. Smith Whitaker, medical secretary of the British Medical Association, had been appointed a member of the Insurance Commission; and, if so, when was he first approached.—Mr. LLOYD GEORGE replied: The report is correct. Mr. J. Smith Whitaker was approached last week for the first time on the subject. He consulted the Council of the British Medical Association, and I have a letter from him dated Dec. 2nd as follows: "Having consulted the Council of the British Medical Association I have been advised by them to accept the post of Deputy Chairman of the Insurance Commission for England offered in your letter of Dec. 1st and I do so accept it on the terms stated in that letter."

Mr. JOYNSON-HICKS: May I ask whether we may assume that the British Medical Association are satisfied with the provisions of the Insurance Bill?—Mr. LLOYD GEORGE: I should not like to express an opinion on that question. At any rate the offer was made to the secretary, and the British Medical Association allowed him to accept the position.

Major ANSTRUTHER-GRAY asked whether anyone would be appointed in Scotland to represent the medical profession.—Mr. LLOYD GEORGE: We shall appoint a medical officer, though perhaps not on the same terms as in England. So far as England is concerned, the appointment has been given to one who has experience of this country.

Vaccination Topics.

Dr. PETO asked the President of the Local Government Board whether he was aware that, owing to the increase of exemptions in the three years ended Dec. 31st last, the vaccination officer of the West Bromwich union sustained a total loss of fees of £126 2*s.*, towards which the guardians, with the sanction of the Local Government Board, had awarded gratuities amounting to £45; and whether, seeing that out of the 5398 births registered in the West Bromwich union in the year 1910, 1695 children have been legally exempted from vaccination, and in respect of 4463 births registered in the present year up to Oct. 31st, 1483 statutory declarations of conscientious objection had been received, he would consider the advisability of the vaccination officer's fees of 3*d.* per birth and 9*d.* per successful vaccination being revised for the work performed by him; and whether, having regard to the fact that the guardians had refused to increase the officer's fees and had intimated that they would not sanction any further gratuities although the officer was still suffering hardship from a continual increase of exemptions, he proposed to take any action to bring the officer's remuneration up to the average for the years 1903-07 or thereabouts.—Mr. BURNS answered: I am aware of the circumstances of the case. In sanctioning the gratuity proposed by the guardians in March last I drew the attention of the guardians to the losses suffered by the vaccination officer, and suggested an increase of fees. In April the guardians submitted a proposal to appoint the vaccination officer as assistant relieving officer at a salary of £1 per week; and one of the conditions attached to this appointment was that no further claim for loss of vaccination fees should be made by the vaccination officer. The vaccination officer, so I was informed, was quite satisfied with this arrangement, and I sanctioned the appointment. No further communication on the matter has been received from the vaccination officer.

Mr. BUTCHER: Might I ask the right honourable gentleman, in view of the difficulty of dealing with individual local authorities, whether he will issue a general order on the subject of the remuneration of vaccination officers?—Mr. BURNS answered: On that point I have very little to add to the communications I made to the honourable Member on previous occasions. We are dealing with the 25 outstanding grievances, and we are meeting with considerable success.

Mr. SNOWDEN asked the right honourable gentleman whether he had sanctioned the practice of paying fees to workhouse medical officers for vaccinations performed by them in Poor-law institutions; and, if not, whether he would issue an order directing that the performance of vaccinations should be regarded in future as part of the ordinary

duties of the officers for which they were paid by salary.—Mr. BURNS replied: I may refer the honourable gentleman to previous answers. The system of payment by fees which was established by Statute in 1867 has been continued since. I am, however, not unwilling to consider the question of allowing a workhouse medical officer an inclusive salary to cover payments for vaccination when a vacancy has to be filled.

Mr. SNOWDEN: Has the practice mentioned in the latter part of the answer been adopted in any case?—Mr. BURNS replied: Yes.

Mr. SNOWDEN asked the right honourable gentleman whether the vaccinations performed in Poor-law institutions were performed by public vaccinators only or by the workhouse medical officers when the latter were not public vaccinators; why these vaccinations could not all be performed by the medical officer to the workhouse, whether he was a public vaccinator or not; and why the salary paid to the workhouse medical officer could not include the cost of vaccinating the inmates.—Mr. BURNS said in reply: In most cases the workhouse is a separate vaccination district, and a contract has been entered into for the performance of vaccination in it with the medical officer of the workhouse. Where there is no such contract the workhouse medical officer is in nearly every case the public vaccinator of the district including the workhouse, and vaccinates in that capacity. It is not the duty of the workhouse medical officer as such to vaccinate any of the inmates of the workhouse other than the children requiring vaccination.

TUESDAY, DEC. 5TH.

Medical Men in Scattered Districts in Scotland.

Mr. AINSWORTH asked the Secretary to the Treasury whether the Local Health Committees in Scotland to be appointed under the National Insurance Bill would have the power to award additional remuneration to medical practitioners in sparsely populated districts on the basis of mileage or otherwise.—Mr. MCKINNON WOOD replied: Local Insurance Committees may, within the resources at their disposal, make such arrangements with medical men as they think fit, and the amount available for medical benefit may be increased either by the reduction of the other benefits which they administer, or where this is possible and the authorities concerned consent, by grants chargeable to the rates and to the Treasury in equal proportions.

BOOKS, ETC., RECEIVED.

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Transactions of the Medico-Legal Society for the Year 1910–1911. Edited by Digby Cotes-Preedy, M.A., LL.M. Cantab., L.S.A. Lond., Vice-President of the Society, of the Inner Temple and Oxford Circuit, Barrister-at-law. Vol. VIII. Price not stated.

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3. Bericht über Salvarsanbehandlung aus dem Kaiserlichen Marinelazarett Kiel-Wik. Von Dr. Gennerich, Marine-Stabsarzt. Price M.2.40.

HIRZEL, S., Königstrasse, 2, Leipzig.

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Jahresbericht der Gesellschaft für Natur- und Heilkunde in Dresden. Sitzungsperiode 1910–1911. (Oktober, 1910, bis Mai, 1911.) Redaktion geschlossen 1. VIII., 1911. Ausgegeben 1. IX., 1911. Price not stated.

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METHUEN AND CO., LIMITED, 36, Essex-street, London, W.C.

Outlines of Biology. By P. Chalmers Mitchell, LL.D., F.R.S., F.Z.S., F.L.S., Secretary to the Zoological Society. Revised and supplemented by Geo. P. Mudge, A.R.C.Sc. Lond., F.Z.S. Lecturer on Biology, London Hospital Medical College (University of London) and at London School of Medicine for Women (University of London). Price 6*s.* net.

A Text-book of Inorganic Chemistry. By George Senter, D.Sc. Lond., Ph.D., Lecturer on Chemistry at St. Mary's Hospital, University of London. Price 6*s.* 6*d.* net.

PHARMACEUTICAL PRESS, THE, 72, Great Russell-street, London, W.C.

The British Pharmaceutical Codex, 1911. An Imperial Dispensatory for the Use of Medical Practitioners and Pharmacists. Published by Direction of the Council of the Pharmaceutical Society of Great Britain. Price, blue cloth, gilt, with red edges, 10*s.* 6*d.* net; in stout buckram or in limp waterproof cloth, 11*s.* 6*d.* net. (Postage 6*d.* extra in the United Kingdom; 1*s.* 6*d.* extra abroad.) Interleaved copies bound to order, at an extra charge of 3*s.* 6*d.* per copy.

PIONEER PRESS, Allahabad.

Prevention of Disease and Inefficiency, with Special Reference to Indian Frontier Warfare. By Lieutenant-Colonel Patrick Hehir, I.M.S., M.D., F.R.C.P.E., F.R.C.S.E., F.R.S.E., D.P.H. Camb., D.T.M. (Liv. Univ.), Officiating Principal Medical Officer, Burma Division. Second edition, illustrated and revised. Price not stated.

POWER LAUNDRY, THE, 89, Farringdon-street, London, E.C.

Power Laundry Handbook, No. 2. The Washhouse: All about it. With Many Useful Hints and Tables. Edited by C. F. Townsend, F.C.S. Price 1*s.* net.

REBMAN, LIMITED, London.

An International System of Ophthalmic Practice. Edited by Walter L. Pyle, A.M., M.D., Philadelphia, Member of the American Ophthalmological Society. Pathology and Bacteriology. By E. Treacher Collins, F.R.C.S., Surgeon to the Royal London Ophthalmic Hospital and Ophthalmic Surgeon to the Charing Cross Hospital, &c., and M. Stephen Mayou, F.R.C.S., Surgeon and Pathologist to the Central London Ophthalmic Hospital, &c. Price 21*s.* net.

SALVAT Y COMPANIA, S. EN C., Editores, Calle de Mallorca, 220, Barcelona.

Las Nuevas Adquisiciones de la Cirugía intratorácica. Por el Dr. D. Ricardo Lozano, Catedrático de Clínica quirúrgica, por oposición, de la Facultad de Medicina de Zaragoza. Price, paper, pesetas 12; boards, pesetas 15, net, cash.

SPRINGER, JULIUS, VERLAG VON, Berlin.

Die Gonorrhöe des Mannes. Ihre Pathologie und Therapie. Ein Leitfaden für Aerzte und Studierende. Von Dr. med. Wilhelm Karo. Price, paper, M.2.80; bound, M.3.40

Handbuch der Inneren Medizin. Herausgegeben von Prof. Dr. L. Mohr, Direktor der Medizin. Poliklinik zu Halle (Saale) und Prof. Dr. R. Staehelin, Direktor der Medizin. Klinik zu Basel. Erster Band. Infektionskrankheiten. (In collaboration with 39 authors.) Price, paper, M.26; bound, M.28.50.

THACKER, SPINK, AND CO., Calcutta. THACKER, W., AND CO., 2, Creed-lane, London, E.C.

Tropical Hygiene for Anglo-Indians and Indians. By the Honourable Surgeon-General C. P. Lukis, M.D., F.R.C.S., C.S.I., Director-General of the Indian Medical Service, and Major R. J. Blackham, D.P.H. Lond., R.A.M.C., Knight of Grace of the Order of St. John, of the Middle Temple, Barrister-at-Law, Kaiser-i-Hind Medallist, Divisional Sanitary Officer, First Division, Indian Army. Price 4*s.* 6*d.* net.

TIPOGRAFIA AMERICANA, Caracas, Venezuela.

Universidad Central de Venezuela. Facultad de Ciencias Medicas. P. F. Arreaza Calatrava, Ex-Interno del Degredo de Apestados, Antiguo Interno de los Hospitales Civiles, Ex-Practicante Interno del Hospital militar, Ex-Practicante Mayor del Hospital Vargas. La Peste en Caracas (Epidemias de 1908, 1909, 1910) Tesis de Opcion al Doctorado. Numero 102. Price not stated.

UNIVERSITY PRESS, Cambridge; Fetter-lane, London, E.C. (C. F. Clay, Manager); 100, Princes-street, Edinburgh.

The Climate of the Continent of Africa. By Alexander Knox, B.A. (Cantab.), F.R.G.S., Member of Convocation of the University of the Cape of Good Hope, Author of Notes on the Geology of Africa. Price 21*s.* net.

URBAN UND SCHWARZENBERG, Berlin und Wien.

Nachweis und Bestimmung von Giften auf biologischem Wege. Eine Anleitung für Pharmakologen, Gerichtsärzte, Gerichtschemiker und Apotheker. Von Dr. phil. et med. Hermann Fühner, Privatdozenten für Pharmakologie an der Universität Freiburg i.B. Price, paper, M.7.50; bound, M.9.

WILEY, JOHN, AND SONS, New York. CHAPMAN AND HALL, LIMITED, London.

A Text-book of Physiological Chemistry. By Olof Hammarsten, Emeritus Professor of Medical and Physiological Chemistry in the University of Upsala. Authorised Translation from the Author's Enlarged and Revised Seventh German Edition by John A. Mandel, Sc.D., Professor of Chemistry in the New York University and Bellevue Hospital Medical College. Sixth edition. Total issue, nine thousand. Price, cloth, $4.00 net, or 17*s.* net.

WILLIAMS AND NORGATE, 14, Henrietta-street, Covent Garden, London, W.C.

The King to His People. Being the Speeches and Messages of His Majesty George V. as Prince and Sovereign. Published by Permission. Price 5*s.* net.

Common-Sense Dietetics. By C. Louis Leipoldt, F.R.C.S. Eng. Price 2*s.* 6*d.* net.

Appointments.

Successful applicants for Vacancies, Secretaries of Public Institutions, and others possessing information suitable for this column, are invited to forward to THE LANCET *Office, directed to the Sub-Editor, not later than 9 o'clock on the Thursday morning of each week, such information for gratuitous publication.*

BAKER, H. R. POPHAM, M.R.C.S., L.R.C.P.Lond., has been appointed House Surgeon at the Cossham Memorial Hospital.

BALL, C. PRESTON, M.D., B.Ch., B.A.O Dub., L. & M.R.C.S. Irel., L.M., D.P.H., has been appointed Visiting Medical Officer to the Royal Hospital for Incurables, Donnybrook.

BRIDE, T. M., M.D. Vict., has been appointed Honorary Assistant Surgeon to the Manchester Royal Eye Hospital.

BURROUGHS, A. E., M.D. Edin., has been appointed Honorary Assistant Surgeon to the Eye and Ear Infirmary, Myrtle-street, Liverpool.

COX, G. LISSANT, M.B., B.C. Cantab., has been appointed Demonstrator in Pathology at the University of Liverpool.

GARDEN, W. S., M.D., B.S. Aberd., has been appointed Certifying Surgeon under the Factory and Workshop Act for the Horbury District of the county of Yorks, West Riding.

HALL, F., M.B. Vict., D.P.H., has been appointed Assistant Medical Officer of Health of Lincoln.

HARRIES, E. H. R., M.D., B.S. Lond., D.P.H., has been appointed Assistant Medical Officer at the Park Hospital for Children.

HOLDEN, OSCAR, M.B., Ch.B., has been appointed Resident Medical and Surgical Officer at the Jaffray Branch of the General Hospital, Birmingham.

JONES, T. C. LITLER, F.R.C.S. Eng., has been appointed Lecturer in Clinical Surgery at the University of Liverpool.

LANGMEAD, FREDERICK, M.D. Lond., has been appointed Physician to Out-patients at the Hospital for Sick Children, Great Ormond-street.

MURRAY, W. H., L.R.C.P. & S. Irel., has been appointed House Surgeon at the Royal United Hospital, Bath.

OATES, GEOFFREY E., M.D., B.S. Lond., M.R.C.P. Lond., D.P.H., has been appointed Assistant Medical Officer of Health to the Ilford Urban District Council.

RAE, D. ERNEST, M.B., B.S. Aberd., has been appointed Resident House Physician at the Battersea General Hospital, Battersea Park.

ROBINSON, FRANK, M.D. Vict., D.P.H., has been appointed Lecturer in Public Health to the State Medicine Syndicate of the University of Cambridge.

WILKINSON, K. D., M.B., Ch.B. Birm., has been reappointed Resident Medical Officer at the General Hospital, Birmingham.

WOULFE, TIMOTHY, M.B., B.Ch., B.A.O., has been appointed Medical Officer of Tarbert Dispensary District, Listowel Union, Ireland.

WRIGHT, OSWALD KENTISH, M.B., B.C. Cantab., M.R.C.S., L.R.C.P. Lond., D.P.H., has been appointed Medical Officer to Gresham's School, Holt, Norfolk.

WYMAN, H. B., has been reappointed Resident Pathologist at the General Hospital, Birmingham.

Vacancies.

For further information regarding each vacancy reference should be made to the advertisement (see Index).

BARNSLEY, BECKETT HOSPITAL.—Second House Surgeon, unmarried. Salary £100 per annum, all found.

BIRMINGHAM AND MIDLAND HOSPITAL FOR SKIN AND URINARY DISEASES.—Clinical Assistant for three months. Salary at rate of 52 guineas per annum.

BLACKBURN AND EAST LANCASHIRE INFIRMARY.—Junior House Surgeon. Salary £85 per annum, with board, residence, washing, &c.

BRENTFORD UNION INFIRMARY.—First Assistant to the Medical Superintendent, unmarried. Salary £185 per annum, with apartments, rations, washing, &c.

BRIGHTON, HOVE, AND PRESTON DISPENSARY.—Resident Medical Officer, unmarried. Salary £160 per annum, with rooms, coals, gas, and attendance.

CANTERBURY, KENT AND CANTERBURY HOSPITAL.—Resident Medical Officer, unmarried. Salary £90 per annum, with board, lodging, and washing.

DERBY, DERBYSHIRE ROYAL INFIRMARY.—Two House Surgeons and House Physician for one year. Salary in each case £100 per annum, with apartments, board, &c. Also Assistant House Surgeon for six months. Salary at rate of £60 per annum, with apartments, board, &c.

ENNISKILLEN, FERMANAGH COUNTY HOSPITAL.—House Surgeon. Salary £72 per annum.

GOVAN DISTRICT ASYLUM, Hawkhead, near Paisley.—Second Assistant Medical Officer. Salary £150 per annum, with rooms, board, laundry, and attendance.

GRANGE-OVER-SANDS, WESTMORLAND CONSUMPTION SANATORIUM AND HOME, Lancs.—Assistant Medical Officer, unmarried. Salary £150 per annum, all found.

GREAT YARMOUTH HOSPITAL.—House Surgeon, unmarried. Salary £100 per annum, with board, lodging, and washing.

HELLINGLY, EAST SUSSEX COUNTY ASYLUM.—Third Assistant Medical Officer, unmarried. Salary £160 per annum, with board, apartments, washing, and attendance.

HENDON, N.W., CENTRAL LONDON SICK ASYLUM.—Assistant Medical Officer. Salary £120 per annum, with board and residence.

HÔPITAL FRANÇAIS, 172, Shaftesbury-avenue, W.C.—Resident Medical Officer, unmarried, for six months. Salary £100 per annum, with board and laundry.

HULL ROYAL INFIRMARY.—Assistant House Surgeon. Salary at rate of £60 per annum, with board and lodging.

INDIAN MEDICAL SERVICE.—Twelve Commissions.

LEICESTER INFIRMARY.—Assistant House Physician for six months. Salary at rate of £80 per annum, with board, apartments, and washing.

LONDON LOCK HOSPITAL.—House Surgeon to Female Hospital. Also House Surgeon to Male Hospital. Salary in each case £100 per annum, with board, lodging, and washing. Also Assistant House Surgeon. Salary £80 per annum, with board, lodging, and washing.

MANCHESTER HOSPITAL FOR CONSUMPTION AND DISEASES OF THE THROAT AND CHEST.—Assistant Medical Officer and Pathologist. Salary £60 per annum.

MANCHESTER WORKHOUSE, Crumpsall.—Junior Resident Assistant Medical Officer. Salary £110 per annum, with apartments, washing, attendance, &c.

MIDDLESBROUGH, NORTH RIDING INFIRMARY.—Assistant House Surgeon. Salary £75 per annum, with board, residence, and washing.

NORTHAMPTON GENERAL HOSPITAL.—Senior Resident Medical Officer, unmarried. Salary £120 per annum, with apartments, board, washing, and attendance.

NOTTINGHAM GENERAL HOSPITAL.—Senior House Physician. Salary £100 per annum, with board, lodging, and washing.

PADDINGTON GREEN CHILDREN'S HOSPITAL, London, W.—Honorary Physician.

QUEEN CHARLOTTE'S LYING-IN HOSPITAL, Marylebone-road, N.W.—Assistant Resident Medical Officer for four months. Salary at rate of £50 per annum, with board, residence, and washing.

ROYAL EAR HOSPITAL, Soho.—Honorary Visiting Physician. Also Honorary Pathologist.

ST. BARTHOLOMEW'S HOSPITAL.—Chief Assistants and Clinical Assistants for Aural Out-patient Department.

SHEFFIELD ROYAL HOSPITAL.—Assistant House Physician, unmarried. Salary £60 per annum, with board, lodging, and washing.

SHEFFIELD ROYAL INFIRMARY.—Junior Resident Medical Officer. Salary £60 per annum.

VIRGINIA WATER, SURREY, HOLLOWAY SANATORIUM FOR THE INSANE.—Junior Assistant Medical Officer (female). Salary £150 per annum, with board, lodging, laundry, attendance, &c.

WALSALL AND DISTRICT HOSPITAL.—Honorary Radiographer.

WEST-END HOSPITAL FOR DISEASES OF THE NERVOUS SYSTEM, &c., 73, Welbeck-street, London, W.—Honorary Assistant Anæsthetist.

WOLVERHAMPTON AND STAFFORDSHIRE GENERAL HOSPITAL.—Resident Medical Officer. Salary £100 per annum, with board, rooms, and laundry.

THE Chief Inspector of Factories, Home Office, London, S.W., gives notice of vacancies as Certifying Surgeons under the Factory and Workshop Act at Coatbridge, in the county of Lanarkshire; at Hipperholme, in the county of Yorkshire, West Riding; and at Westhoughton, in the county of Lancashire.

Births, Marriages, and Deaths.

BIRTHS.

DE ZILWA.—On Oct. 16th, at Taprobane, Ward Place, Cinnamon Gardens, Colombo, Ceylon, the wife of Dr. Lucian Arnold Emmanuel de Zilwa, M.D., B.Sc. Lond., of a daughter.

HOLROYDE.—On Nov. 30th, at Barnsley, Yorks, the wife of Douglas Holroyde, M.A., M.B., B.C., of a son.

PRINGLE.—On Nov. 28th, at Croydon-road, Anerley, the wife of Ernest G. Pringle, M.D., of a son.

ROBERTS.—On Dec. 3rd, at Bishopgarth, Woking, the wife of Dr. C. M. Roberts, of a son.

MARRIAGES.

CHITTY—GWILLIM.—On Dec. 1st, at St. Peter's, Piccadilly, Hubert Chitty, M.S., F.R.C.S., third son of G. W. Chitty, Esq., of Ightham, Kent, to Florence Louise Gwillim, third daughter of the late William Gwillim, Esq., of Ross, Herefordshire.

RUTHERFOORD—CADDY.—At St. Andrew's Church, Bombay, on Nov. 17th, 1911, by the Rev. J. Cameron, Thomas Corrie Rutherfoord, Captain, Indian Medical Service, eldest son of the late T. B. Rutherfoord, to Mary Frances Caddy, daughter of John Francis Caddy, and granddaughter of Mrs. Caddy, of Charterhouse, Richmond, Surrey.

DEATHS.

COOPER.—On Dec. 1st, at the West London Hospital, Hammersmith, from blood poisoning contracted while assisting at an operation, Leonard Kingsford Cooper, L.R.C.P., M.R.C.S. Eng., Blackheath, S.E., aged 25 years.

WESTBY.—On Nov. 9th, at Beaufort West, Cape Colony, Ashley John, M.B., youngest son of the late Canon H. H. J. Westby.

N.B.—A fee of 5s. is charged for the insertion of Notices of Births, Marriages, and Deaths.

Notes, Short Comments, and Answers to Correspondents.

THE DANGER OF USING ELECTRICAL BED-WARMERS.

To the Editor of THE LANCET.

SIR,—It is with great regret and indignation that an electrical manufacturer reads of the facts "Cave" mentions in your issue of Nov. 18th—viz., that bed-clothes have been set on fire, and a lady nearly injured by the use of an electric bed-warmer. Now it is known, indeed, that there are various types of electric bed-warmers on the market which, from business and ethical reasons, should be condemned to non-existence. Nevertheless, they exist, as "Cave's" communication shows, and there are three causes which explain their existence—namely, (1) manufacturers without the knowledge of the simple mechanical and electrical principles at work in the electric cushion; (2) manufacturers who wish to earn more profit than is fair; and (3) manufacturers who wish to take every available order, and who must therefore manufacture cheaply and without sufficient care.

If these three considerations did not exist on the part of the manufacturers, or if the electrical device is made in accordance with Ohm's and Joule's law, &c., and if good material is worked in the hands of skilled and reliable mechanics, and the whole process kept under strict supervision and adequate testing—then there is not the shadow of a danger in using an electric bed-warmer.

If "Cave" will be kind enough to test the electric cushions made in my factory he will see the impossibility of their igniting, because as soon as the temperature in one part of the cushion reaches 210° F. one of the safety devices cuts off the current altogether. Of course, these safety devices must not only be there, but they must also work properly, and when the temperature has fallen the current is again switched on. It would be ridiculous to put a fuse into the cushion, which would be blown often enough and make the apparatus each time liable to repair.

All I can say is that my electric cushions are absolutely reliable, and having personally tested hundreds of them before sending them out of my factory I have never had a single complaint. On the other hand, as most of them have gone to hospitals and private patients they have proved a helpful addition to clinical means. My cushion is recognisable by the lead seal marked "H" on every one and the rotary switch regulator on the cord which regulates the temperature while in use.

I am, Sir, yours faithfully,

Berlin, Nov. 25th, 1911. RICHARD HEILBRUN, Ph.D., A.A.T.E.E.

WANTED, A POST.

To the Editor of THE LANCET.

SIR,—Would some of your readers kindly inform me as to the best method of getting a middle-aged maternity nurse (Queen Charlotte trained) attached to some institution where she would have a home to go when disengaged, and where she would be sure of getting the one thing she most desires—viz., work and a fair remuneration for the same?

I am, Sir, yours faithfully,

JOHN E. H. PARSONS.

The Cottage, Shipton-under-Wychwood, Oxford,
Dec. 4th, 1911.

RAGGED SCHOOL UNION AND SHAFTESBURY SOCIETY.

To the Editor of THE LANCET.

SIR,—There is nothing novel about the bitter need of the poorest children of London in the winter time; unfortunately it recurs with depressing regularity. And with it must be repeated, by your kind permission, my appeal to your readers for their generous help of the work of the Ragged School Union. This society has been the true friend of London's poorest children for nearly 70 years. Our work, while resting on a religious basis, is unsectarian and non-faddist, and by reason of our long experience we claim that it is economical and practical. We exist to meet promptly the real and pressing needs of the slum child. Our relief work can be summed up briefly as follows: Food for the child that is hungry; clothes for the child that is ragged; boots for the little feet blue with cold; simple pleasures for the sad, and healing for the sick and crippled. To all who are well fed, warmly clad, soundly shod, happy and healthy, I earnestly appeal on behalf of those unfortunate "opposites" down in the dark places of London's poor streets. A careful expenditure of all funds entrusted to the R.S.U. is guaranteed, and I can safely promise a wealth of gratitude for every penny your readers indly send to me.—I am, Sir, yours faithfully,

JOHN KIRK, Director and Secretary.

32, John-street, Theobald's-road, London, W.C., Dec. 1st, 1911.

Quis (*M.D.*).—1. The workhouse infirmaries are supported out of the rates, and the patients are supported by the parishes or unions. 2. The county hospitals, not necessarily, but very generally, in or quite near to the county towns, are supported by voluntary subscriptions.

M.D. writes: I have a patient who suffers from a good deal of discomfort from underclothing. I should be obliged if any of your readers could inform me about any texture which is non-irritating and at the same time cool.

Service.—Is not the point rather that all practitioners enter the profession after long, difficult, and costly training, and in this respect all have an equal right to consideration?

Disgusted.—We are much obliged to our correspondent; and will see if we can make useful comment upon the speeches of the politician in question.

Staff.—Such attendance would certainly not be objected to.

COMMUNICATIONS not noticed in our present issue will receive attention in our next.

A DIARY OF CONGRESSES.

WE shall publish this diary from time to time that our readers may have under their hands the dates of the approaching scientific Congresses. It is unnecessary to issue the lists of all these functions week by week, and we propose to make only such gatherings as will occur in the immediate future the subject of regular announcement. The following Congresses, Conferences, and Exhibitions are announced for the next few months:—

Dec. 4th–9th (Havana, Cuba).—American Public Health Association.
" 12th–14th (Washington, D.C.).—Southern Surgical and Gynæcological Association.
" 19th–23rd (Moscow).—Third Pan-Russian Therapeutical Congress.
" 27th–30th (Baltimore).—American Physiological Society.

In 1912:—
Jan. 20th–27th (Hong-Kong).—Second Biennial Congress of the Far Eastern Association of Tropical Medicine.
Feb. 13th–14th (London).—Central Poor-Law Conference.
March 7th–11th (Berlin).—Thirty-third Balneological Congress.
" 23rd–April 4th (London, Royal Agricultural Hall).—International Smoke Abatement Exhibition.
" (London).—First Congress of Pure Food and Health Society of Great Britain.
April 1st–7th (Tunis).—Twenty-second Congress of French-speaking Alienists and Neurologists.
" 14th–20th (Rome).—Seventh International Congress on Tuberculosis.
" (Rome).—Seventh International Congress of Dermatology and Syphilology.
" (Giessen).—Congress on Study of Families, Inheritance, and Race Hygiene.
Spring (London).—Second Optical Convention.
May 7th–17th (Washington).—Ninth International Red Cross Conference.
" 27th–June 1st (London).—Eighteenth International Congress of Americanists.
" (London).—International Horticultural Exhibition.
June 24th–27th (London).—The (Biennial) Health Conference and Exhibition.
" (London).—Missionary Exhibition.
" (Dublin).—Celebration of the Bicentenary of the School of Physic in Ireland (Medical School of Trinity College, Dublin).
July 2nd–5th (London).—Congress of the Universities of the Empire.
" 2nd–6th (Doncaster).—Seventy-third Annual Show of the Royal Agricultural Society of England.
" 12th–16th (London).—Imperial Conference of Teachers' Associations.

METEOROLOGICAL READINGS.

(Taken daily at 8.30 a.m. by Steward's Instruments.)

THE LANCET Office, Dec. 6th, 1911.

Date.	Barometer reduced to Sea Level and 32° F.	Direction of Wind.	Rain fall.	Solar Radio in Vacuo.	Maximum Temp. Shade.	Min. Temp.	Wet Bulb.	Dry Bulb.	Remarks.
Nov. 30	30·37	S.W.	...	51	48	39	43	43	Foggy
Dec. 1	30·19	S.W.	...	51	49	43	44	46	Overcast
" 2	30·12	S.W.	...	57	49	45	46	47	Overcast
" 3	29·85	S.W.	0·08	72	54	45	45	46	Cloudy
" 4	29·89	S.	0·08	63	49	43	44	45	Raining
" 5	29·53	S.W.	0·21	58	50	41	48	48	Raining
" 6	30·08	S.W.	0·27	60	46	37	37	38	Fine

The following journals, magazines, &c., have been received:—Journal of the Scottish Meteorological Society, Polyclinic, Man, Medical Chronicle, Yellow Fever Bureau Bulletin, Public Health, La Clinique Infantile, Transactions of the American Otological Society, Revista Stiintelor Medicale, Edinburgh Medical Journal, South African Medical Record, Dublin Journal of Medical Science, Transvaal Medical Journal, Practitioner, Indian Medical Gazette, Indian Medical Journal, Medico-Surgical Journal of the Tropics, Annales de Gynécologie et d'Obstétrique, Journal of the Royal Sanitary Institute, Montreal Pharmaceutical Journal, Canadian Journal of Medicine and Surgery, Cleveland Medical Journal.

Medical Diary for the ensuing Week.

SOCIETIES.

ROYAL SOCIETY OF MEDICINE, 15, Cavendish-square, W (temporary address during building of new house).

TUESDAY.

SURGICAL SECTION (Hon. Secretaries—L. A. Dunn, James Berry): at 5.30 P.M.

Short Papers:

The President (Mr. Clinton T. Dent): Case of Intestinal Obstruction following an Ovariotomy 45 Years Previously.

Mr. Robert Jones (Liverpool): Treatment of Claw Foot.

Mr. Thomas H. Kellock: The Results of the Operation for Inguinal Hernia in Young Children.

Mr. John Murray: Case of Pancreatic Calculus—Stone Removed by Operation.

Mr. Walter G. Spencer: Hydrocephalus Internus—Subdural Rupture causing Hydrocephalus Externus.

WEDNESDAY.

BALNEOLOGICAL AND CLIMATOLOGICAL SECTION (Hon. Secretaries—A. Manuel, F. A. de T. Mouillot): at 5.30 P.M.

Paper:

Dr. G. Monod (Vichy): The Treatment of Gastro-hepatic Dyspepsia at Vichy, Carlsbad, and Cheltenham.

(At 7 P.M. the Members will dine together at Bellini's Restaurant, Mill-street, Regent-street, W. The charge for the dinner is 4*s.* 6*d.*, and Members may bring their friends. Dr. Manuel will be glad to receive names of those intending to dine.)

THURSDAY.

DERMATOLOGICAL SECTION (Hon. Secretaries—J. H. Sequeira, Wilfred Fox), at 11, Chandos-street, W.: at 5 P.M.

Demonstration of Cases.

NEUROLOGICAL SECTION (Hon. Secretaries—Wilfred Harris, T. Grainger Stewart): at 8 P.M.

Clinical Meeting:

Dr. Garrod: Case of Myotonus.

Dr. James Collier: (1) Peculiar Case of Congenital Paralysis; (2) Three Cases of Bilateral Athetosis.

Mr. Percy Sargent: Three Cases of Facial Palsy treated by Hypoglossal Anastomosis.

Dr. Otto May: (1) Case of Cerebral Diplegia treated by Posterior Root Section; (2) Case of Cerebral Monoplegia.

Dr. P. W. Saunders: Pituitary Tumour with Hypopituitarism.

Cases

Will also be shown by Dr. James Taylor, Dr. Leonard Guthrie, Dr. Hinds Howell, and others.

FRIDAY.

SECTION FOR THE STUDY OF DISEASE IN CHILDREN (Hon. Secretaries—T. R. Whipham, H. S. Clogg, Percy G. Lewis), at 11, Chandos-street, W.: at 4.30 P.M.

Discussion

On the Treatment of Tuberculous Joint Disease in Children, to be opened by

Mr. A. H. Tubby: The Relative Advantages of Operative Measures.

Sir Anthony Bowlby, C.M.G.: The Results Obtainable without Operation.

Dr. A. Butler Harris: The Rôle of Vaccine Therapy.

The following also will take part in the Discussion: Mr. A. E. Barker, Sir W. Watson Cheyne, C.B., F.R.S., Mr. Robert Jones (Liverpool), Mr. J. Jackson Clarke, Mr. E. M. Corner, Mr. P. Lockhart Mummery, Mr. W. G. Sutcliffe (Margate), Mr. H. J. Gauvain (Alton), Mr. R. C. Elmslie.

ELECTRO-THERAPEUTICAL SECTION (Hon. Secretaries—G. Harrison Orton, Cecil R. C. Lyster): at 8.30 P.M.

Clinical Meeting:

Interesting Skiagrams, &c., will be shown by Dr. Aldridge, Dr. Ironside Bruce, Dr. Lewis Jones, Dr. Reginald Morton, Mr. A. D. Reid, Mr. Gilbert Scott, and others.

Demonstration of the "Oscillothermex," a combined apparatus for Diathermy, High Frequency, and X Ray Treatments.

MEDICAL SOCIETY OF LONDON, 11, Chandos-street, Cavendish-square, W.

MONDAY.—8.30 P.M., Mr. J. D. Malcolm: Some Remarks on 400 Operations involving the Peritoneum and a Comparison of the Fatal Cases, 3·75 per cent., with those of the Writer's Earliest Work.

UNITED SERVICES MEDICAL SOCIETY, Royal Army Medical College, Grosvenor-road, S.W.

WEDNESDAY.—5 P.M., Fleet-Surgeon D. J. P. McNabb: Hospital Ships and their Functions.

OPHTHALMOLOGICAL SOCIETY, 11, Chandos-street, Cavendish-square, W.

THURSDAY.—8 P.M., Card Specimen will be shown by Dr. Edridge-Green, Mr. A. H. Levy, Mr. W. H. McMullen, Mr. A. S. Worton, and Mr. N. B. Harman. Papers:—Dr. T. Henderson: The Pathogenesis of Choked Disc.—Dr. A. Bronner: Notes on Three Cases of Ulcer of the Cornea combined with Painful Spasm of the Sphincter Pupillæ.—Mr. J. H. Parsons and Mr. E. K. Martin: The Action of Ultra-Violet Rays upon the Ciliary Body and Lens.

PHARMACEUTICAL SOCIETY OF GREAT BRITAIN, 17, Bloomsbury-square, W.C.

TUESDAY.—8 P.M., Prof. H. G. Greenish: A Series of Slides Illustrating Caraway Cultivation in Holland. Mr. G. C. Druce: A Visit to Japan (illustrated by lantern slides).

NEW LONDON DERMATOLOGICAL SOCIETY, 20, Hanover-square, W.

THURSDAY.—4.30 P.M., Clinical Cases.

LECTURES, ADDRESSES, DEMONSTRATIONS, &c.

MEDICAL GRADUATES' COLLEGE AND POLYCLINIC, 22, Chenies-street, W.C.

MONDAY.—4 P.M., Dr. H. G. Adamson: Clinique (Skin). 5.15 P.M., Lecture:—Dr. U. Pritchard: Complication of Middle Ear Suppuration.

TUESDAY.—4 P.M., Dr. J. J. Perkins: Clinique (Medical). 5.15 P.M., Lecture:—Dr. A. J. Jex-Blake: Congenital Heart Disease.

WEDNESDAY.—4 P.M., Mr. P. Turner: Clinique (Surgical). 5.15 P.M., Lecture:—Dr. R. A. Gibbons: Pruritus of the Vulva.

THURSDAY.—4 P.M., Mr. R. J. Howard: Clinique (Surgical). 5.15 P.M., Lecture:—Dr. T. Claye-Shaw: The Mode of Thought in the Insane.

FRIDAY.—4 P.M., Dr. J. D. Grant: Clinique (Ear, Nose and Throat).

POST-GRADUATE COLLEGE, West London Hospital, Hammersmith-road, W.

MONDAY.—10 A.M., Surgical Registrar: Demonstration of Cases in Wards. Dr. Simson: Diseases of Women. 12 noon, Dr. Bernstein: Pathological Demonstration. 2 P.M., Medical and Surgical Clinics. X Rays. Operations. 2.30 P.M., Mr. Dunn: Diseases of the Eye. 5 P.M., Lecture:—Mr. P. Dunn: Glaucoma.

TUESDAY.—10 A.M., Dr. Robinson: Gynæcological Operations. 11.30 A.M., Mr. Etherington-Smith: Demonstration of Minor Operations. 2 P.M., Medical and Surgical Clinics. X Rays. Operations. Dr. Davis: Diseases of the Throat, Nose, and Ear. 2.30 P.M., Dr. Abraham: Diseases of the Skin. 5 P.M., Lecture:—Dr. Morton: X Ray Diagnosis.

WEDNESDAY.—10 A.M., Dr. Simson: Gynæcological Demonstration. Dr. Saunders: Diseases of Children. Dr. Davis: Operations of the Throat, Nose, and Ear. 2 P.M., Medical and Surgical Clinics. X Rays. Operations. Mr. B. Harman: Diseases of the Eye. 2.30 P.M., Dr. Simson: Diseases of Women. 5 P.M., Lecture:—Mr. Bidwell: The Treatment of Acute General Peritonitis.

THURSDAY.—10 A.M., Surgical Registrar: Demonstration of Cases in Wards. 12.15 P.M., Lecture:—Dr. G. Stewart: Practical Medicine. 2 P.M., Medical and Surgical Clinics. X Rays. Operations. 2.30 P.M., Mr. Dunn: Diseases of the Eye. 5 P.M., Lecture:—Mr. Baldwin: Practical Surgery. (Lecture VI.)

FRIDAY.—10 A.M., Dr. Robinson: Gynæcological Operations. 12.15 P.M., Lecture:—Dr. Pritchard: Practical Medicine. 2 P.M., Medical and Surgical Clinics. X Rays. Operations. Dr. Davis: Diseases of the Throat, Nose, and Ear. 2.30 P.M., Dr. Abraham: Diseases of the Skin. 5 P.M., Lecture:—Mr. S. Taylor: A Trace of Albumen.

SATURDAY.—10 A.M., Medical Registrar: Demonstration of Cases in Wards. Dr. Saunders: Diseases of Children. Dr. Davis: Operations of the Throat, Nose, and Ear. Mr. Bishop Harman: Diseases of the Eye. 2 P.M., Medical and Surgical Clinics. X Rays. Operations.

LONDON SCHOOL OF CLINICAL MEDICINE, Dreadnought Hospital, Greenwich.

MONDAY.—2 P.M., Operations. 2.15 P.M., Mr. Turner: Surgery. 3.15 P.M., Sir Dyce Duckworth: Medicine. 4.30 P.M., Mr. R. Lake: Ear and Throat. Out-patient Demonstrations:—10 A.M., Surgical and Medical. 12 noon, Ear and Throat. 3.15 P.M., Special Lecture:—Sir Dyce Duckworth: The Personal Factor in Disease.

TUESDAY.—2 P.M., Operations. 3.15 P.M., Dr. R. Wells: Medicine. 2.15 P.M., Mr. R. Carling: Surgery. 4.15 P.M., Sir M. Morris: Diseases of the Skin. Out-patient Demonstrations:—10 A.M., Surgical and Medical. 12 noon, Skin. 4.30 P.M., Special Lecture:—Prof. Hewlett: Recent Researches on the Function of the Hypophysis Cerebri.

WEDNESDAY.—2 P.M., Operations. 2.15 P.M., Dr. F. Taylor: Medicine. 3.30 P.M., Mr. Cargill: Ophthalmology. Out-patient Demonstrations:—10 A.M., Surgical and Medical. 11 A.M., Eye. 2.15 P.M., Special Lecture:—Dr. F. Taylor: Pain in the Back.

THURSDAY.—2 P.M., Operations. 2.15 P.M., Dr. G. Rankin: Medicine. 3.15 P.M., Sir W. Bennett: Surgery. Out-patient Demonstrations:—10 A.M., Surgical and Medical. 12 noon, Ear and Throat.

FRIDAY.—2 P.M., Operations. 2.15 P.M., Sir J. Rose Bradford: Medicine. 3.15 P.M., Mr. McGavin: Surgery. Out-patient Demonstrations:—10 A.M., Surgical and Medical. 12 noon, Skin.

SATURDAY.—10 A.M., Radiography. 11 A.M., Dr. A. Davies: Pathological Demonstration. 2 P.M., Operations. Out-patient Demonstration:—10 A.M., Surgical and Medical. 11 A.M., Eye.

NORTH-EAST LONDON POST-GRADUATE COLLEGE, Prince of Wales's General Hospital, Tottenham, N.

MONDAY.—Clinics:—10.30 A.M., Surgical Out-patient (Mr. R. Gillespie). 2.30 P.M., Medical Out-patient (Dr. T. R. Whipham); Nose, Throat, and Ear (Mr. H. D. Gillies). 3 P.M., Pathological Demonstration (Dr. Duncan).

TUESDAY.—Clinic; 2.30 P.M., Operations. Clinics:—Medical Out-patient (Dr. A. G. Auld.); Surgical (Mr. Howell Evans); Gynæcological (Dr. A. B. Giles). 3.30 P.M., Medical In-patient (Dr. A. J. Whiting). 4.30 P.M., Lecture:—Dr. R. M. Leslie: The Tuberculin Treatment of Tuberculosis.

WEDNESDAY.—Clinics:—2 P.M., Throat Operations (Mr. Gillies). 2.30 P.M., Children's Out-patient (Dr. T. R. Whipham); Skin (Dr. G. N. Meachen): Eye (Mr. R. P. Brooks). 3 P.M., X Rays (Mr. W. Steuart); Pathological Demonstration (Dr. Duncan). 5.30 P.M., Eye Operations (Mr. Brooks).

THURSDAY.—2.30 P.M., Gynæcological Operations (Dr. A. H. Giles). Clinics:—Medical Out-patient (Dr. A. J. Whiting); Surgical (Mr. Carson). 3 P.M., Medical In-patient (Dr. G. P. Chappel). 4.30 P.M., Lecture:—Dr. G. G. Macdonald: The Natural Cure of Diseases.

FRIDAY.—2.30 P.M., Operations. Clinics:—Medical Out-patient (Dr. A. G. Auld); Surgical (Mr. E. Gillespie); Eye (Mr. R. P. Brooks). 3 P.M., Medical In-patient (Dr. R. M. Leslie); Pathological Demonstration (Dr. Duncan).

HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST, Brompton, S.W.

WEDNESDAY.—4 P.M., Lecture:—Dr. Maguire: The Germicide Treatment of Pulmonary Tuberculosis.

NATIONAL HOSPITAL FOR THE PARALYSED AND EPILEPTIC, Queen-square, Bloomsbury, W.C.

TUESDAY.—3.30 P.M., Clinical Lecture:—Dr. F. Batten: Paraplegia.
FRIDAY.—3.30 P.M., Clinical Lecture:—Dr. G. Holmes: Cerebellar Disease.

CENTRAL LONDON THROAT AND EAR HOSPITAL, Gray's Inn-road, W.C.

TUESDAY AND FRIDAY.—3.45 P.M., Lecture:—Mr. A. Wylie: Larynx.

ST. JOHN'S HOSPITAL FOR DISEASES OF THE SKIN, 49, Leicester-square, W.C.

TUESDAY.—6 P.M., Dr. W. Griffith: Pathology of the Dermis.
THURSDAY.—6 P.M., Chesterfield Lecture:—Dr. M. Dockrell: Bullous and Vesicular Eruptions (continued)—V., Herpes; VI., Zoster; VII., Dermatitis Herpetiformis.

ANCOATS HOSPITAL, Manchester.

THURSDAY.—4.15 P.M., Mr. W. R. Douglas: Chronic Enlargements of the Testicle. (Post-Graduate Clinic.)

OPERATIONS.

METROPOLITAN HOSPITALS.

MONDAY (11th).—London (2 P.M.), St. Bartholomew's (1.30 P.M.), St. Thomas's (3.30 P.M.), St. George's (2 P.M.), St. Mary's (2.30 P.M.), Middlesex (1.30 P.M.), Westminster (2 P.M.), Chelsea (2 P.M.), Samaritan (Gynæcological, by Physicians, 2 P.M.), Soho-square (2 P.M.), Gt. Northern Central (2.30 P.M.), West London (2.30 P.M.), London Throat (9.30 A.M.), Royal Free (2 P.M.), Guy's (1.30 P.M.), Children, Gt. Ormond-street (9 A.M.), St. Mark's (2.30 P.M.), Central London Throat and Ear (Minor 9 A.M., Major 2 P.M.).

TUESDAY (12th).—London (2 P.M.), St. Bartholomew's (1.30 P.M.), St. Thomas's (3.30 P.M.), Guy's (1.30 P.M.), Middlesex (1.30 P.M.), Westminster (2 P.M.), West London, (2.30 P.M.), University College (2 P.M.), St. George's (1 P.M.), St. Mary's (1 P.M.), St. Mark's (2.30 P.M.), Cancer (2 P.M.), Metropolitan (2.30 P.M.), London Throat (9.30 A.M.), Samaritan (9.30 A.M. and 2.30 P.M.), Throat, Golden-square (9.30 A.M.), Soho-square (2 P.M.), Chelsea (2 P.M.), Children, Gt. Ormond-street (9 A.M. and 2 P.M., Ophthalmic, 2 P.M.), Tottenham (2.30 P.M.), Central London Throat and Ear (Minor, 9 A.M., Major, 2 P.M.), Royal National Orthopædic (9.30 A.M. and 4 P.M.).

WEDNESDAY (13th).—St. Bartholomew's (1.30 P.M.), University College (2 P.M.), Royal Free (2 P.M.), Middlesex (1.30 P.M.), Charing Cross (3 P.M.), St. Thomas's 2 P.M.), London (2 P.M.), King's College (2 P.M.), St. George's (Ophthalmic, 1 P.M.), St. Mary's (2 P.M.), St. Peter's (2 P.M.), Samaritan (9.30 A.M. and 2.30 P.M.), Gt. Northern Central (2.30 P.M.), Westminster (2 P.M.), Metropolitan (2.30 P.M.), London Throat (9.30 A.M.), Cancer (2 P.M.), Throat, Golden-square (9.30 A.M.), Guy's (1.30 P.M.), Royal Ear (2 P.M.), Children, Gt. Ormond-street (9 A.M. and 9.30 A.M., Dental, 2 P.M.), Tottenham (Ophthalmic, 2.30 P.M.), West London (2.30 P.M.), Central London Throat and Ear (Minor, 9 A.M., Major, 2 P.M.).

THURSDAY (14th).—St. Bartholomew's (1.30 P.M.), St. Thomas's (3.30 P.M.), University College (2 P.M.), Charing Cross (3 P.M.), St. George's (1 P.M.), London (2 P.M.), King's College (2 P.M.), Middlesex (1.30 P.M.), St. Mary's (2.30 P.M.), Soho-square (2 P.M.), North-West London (2 P.M.), Gt. Northern Central (Gynæcological, 2.30 P.M.), Metropolitan (2.30 P.M.), London Throat (9.30 A.M.), Samaritan (9.30 A.M and 2.30 P.M.), Throat, Golden-square (9.30 A.M.), Guy's (1.30 P.M.), Royal National Orthopædic (9 A.M. and 3.30 P.M.), Royal Ear (2 P.M.), Children Gt. Ormond-street (9 A.M. and 2 P.M.), Tottenham (Gynæcological, 2.30 P.M.), West London (2.30 P.M), Central London Throat and Ear (Minor, 9 A.M., Major, 2 P.M.).

FRIDAY (15th).—London (2 P.M.), St. Bartholomew's (1.30 P.M.), St. Thomas's (3.30 P.M.), Guy's (1.30 P.M.), Middlesex (1.30 P.M.), Charing Cross (3 P.M.), St. George's (1 P.M.), King's College (2 P.M.), St. Mary's (2 P.M.), Ophthalmic (10 A.M.), Cancer (2 P.M.), Chelsea (2 P.M.), Gt. Northern Central (2.30 P.M.), West London (2.30 P.M.), London Throat (9.30 A.M.), Samaritan (9.30 A.M. and 2.30 P.M.), Throat, Golden-square (9.30 A.M.), Royal National Orthopædic (3.30 P.M.), Soho-square (2 P.M.), Children, Gt. Ormond-street (9 A.M., Aural, 2 P.M.), Tottenham (2.30 P.M.), St. Peter's (2 P.M.)., Central London Throat and Ear (Minor, 9 A.M., Major, 2 P.M.).

SATURDAY (16th).—Royal Free (9A.M.), London (2 P.M.), Middlesex (1.30 P.M.), St. Thomas's (2 P.M.), University College (9.15 A.M.), Charing Cross (2 P.M.), St. George's (1 P.M.), St. Mary's (10 A.M.), Throat, Golden-square (9.30 A.M.), Guy's (1.30 P.M.), Children, Gt. Ormond-street (9 A.M. and 9.30 A.M.), West London (2.30 P.M.).

At the Royal Eye Hospital (2 P.M.), the Royal London Ophthalmic (10 A.M.), the Royal Westminster Ophthalmic (1.30 P.M.), and the Central London Ophthalmic (2 P.M.), Hospital operations are performed daily.

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